

THE
ARCHITECT
& BUILDING NEWS

24 MAY 1956 · VOL 209 · NO. 21 · ONE SHILLING WEEKLY

• CINEPHONE CINEMA, BIRMINGHAM

• DOMESTIC GAS APPLIANCES

PUBLISHED IN LONDON SINCE 1854

WHERE SIMPLE OR COMPLICATED SCHEMES OF VENTILATION ARE INSTALLED, AND THE OPERATION IS REQUIRED, BY REMOTE CONTROL OR OTHERWISE, AND THE WINDOWS HAVE ANY OF THE FOLLOWING CHARACTERISTICS :—

- OPENING OUTWARDS
- OPENING INWARDS
- TOP HUNG
- HORIZONTAL CENTRE-HUNG
- BOTTOM HUNG
- VERTICAL PIVOT HUNG
- SIDE HUNG
- HORIZONTAL SLIDING
- VERTICAL SLIDING



The illustration shows One Set of Electrically operated Twin Tension Rod Gear with Counter-Balance Unit operating one continuous opening light, 74' 0" long x 5' 0" deep. Note the Spiral Balance Wheel fitted at the end Sprocket.

Always Specify **WINDOW OPENING GEAR** *for*
SKYLIGHTS, LANTERN LIGHTS, CLERESTORY LIGHTS, FANLIGHTS, SIDE WALL
LIGHTS IN WOOD OR METAL WINDOWS, OR IN PATENT GLAZING, ROOF LIGHTS
AND BENCH LIGHTS IN GREENHOUSES, DAMPERS, TRAP DOORS, SHIPS SKYLIGHTS, ETC.
HAND - OPERATED—ELECTRIC—HYDRAULIC—REMOTE CONTROL
by **WILLIAM NEWMAN & SONS LTD.**
HOSPITAL STREET, BIRMINGHAM
GEARING DEPT. BRANCH WORKS 3, WELLHEAD LANE, PERRY BARR, BIRMINGHAM

Barry's Heavy Ruboleum

MONARCH OF THE LINOLEUM WORLD SINCE 1907



ADAM HOUSE, EDINBURGH UNIVERSITY

Architects :

Rowand, Anderson, Kininmonth and Paul

Contractors :

Kirkaldy Decorative Floors

HEAVY RUBOLEUM is a superfine linoleum 6.70 mm. thick (approx. $\frac{1}{4}$ "), was first produced by us in 1907, and still holds its position of the highest merit as a floorcovering because of its properties of hygiene, resilience, durability and decorative colourings.

HEAVY RUBOLEUM is produced in 35 beautiful and popular colours, plain and marble effects.

HEAVY RUBOLEUM is especially produced for use on Ship decks and Public buildings. It is available through high-class retail Furnishers and Contract Flooring Specialists.

HEAVY RUBOLEUM is the solution to your flooring problems

SAMPLES ON APPLICATION TO THE EXCLUSIVE MANUFACTURERS

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KIRKCALDY • SCOTLAND

WOOD—nature's best building material

CANADIAN White Pine...

—a light-in-weight creamy white wood used extensively
where long life is of greater importance than high strength

TYPICAL USES

Windows and doors, household fittings,
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Shipbuilding and boat building, en-
gineering works, house construction,
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Patterns, drawing boards and artists'
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Musical instruments

Match splints

Wood flour (used for manufacture of
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SPECIAL ADVANTAGES

Uniform in texture, works well under
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Seasons easily, low shrinkage

Takes stains, paints and varnishes ex-
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Good nail-holding properties, does not
tend to split or splinter

Exported as deals, boards, sidings, deal
ends—and as waney and square timbers
for special purposes

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concerning Canadian woods contact The
Commercial Counsellor (Timber), Canada
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TIM 5

Reproduced here is figure of Canadian White Pine

This advertisement is one of a series featuring Canadian Douglas Fir, Spruce, Red Pine,
Pacific Coast Hemlock, and Western Red Cedar



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NON-PERISHABLE
DAMPCOURSE

**the materials
in 'ASBEX' have
stood the test
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Materials that have stood the test of time are still the best for building purposes . . . Bitumen and Asbestos . . . as old as the hills and as enduring . . . are scientifically combined in 'ASBEX' to form an imperishable, impenetrable dampcourse that moisture cannot harm in any way. Specify 'ASBEX'—as do Architects, Government Departments and Local Authorities—and know that your dampcourses will stand up to settlement and vibration and effectively resist deteriorating influences.

'ASBEX' asbestos dampcourse is also available incorporating a lead lining in compliance with B.S.743/1951, type 5F.

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Aerial view of part of the L.C.C. Housing Estate, Merstham

'Framemesh' on the job

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FRAMEMESH is supplied in rolls or flat sheets for all types of reinforced concrete.

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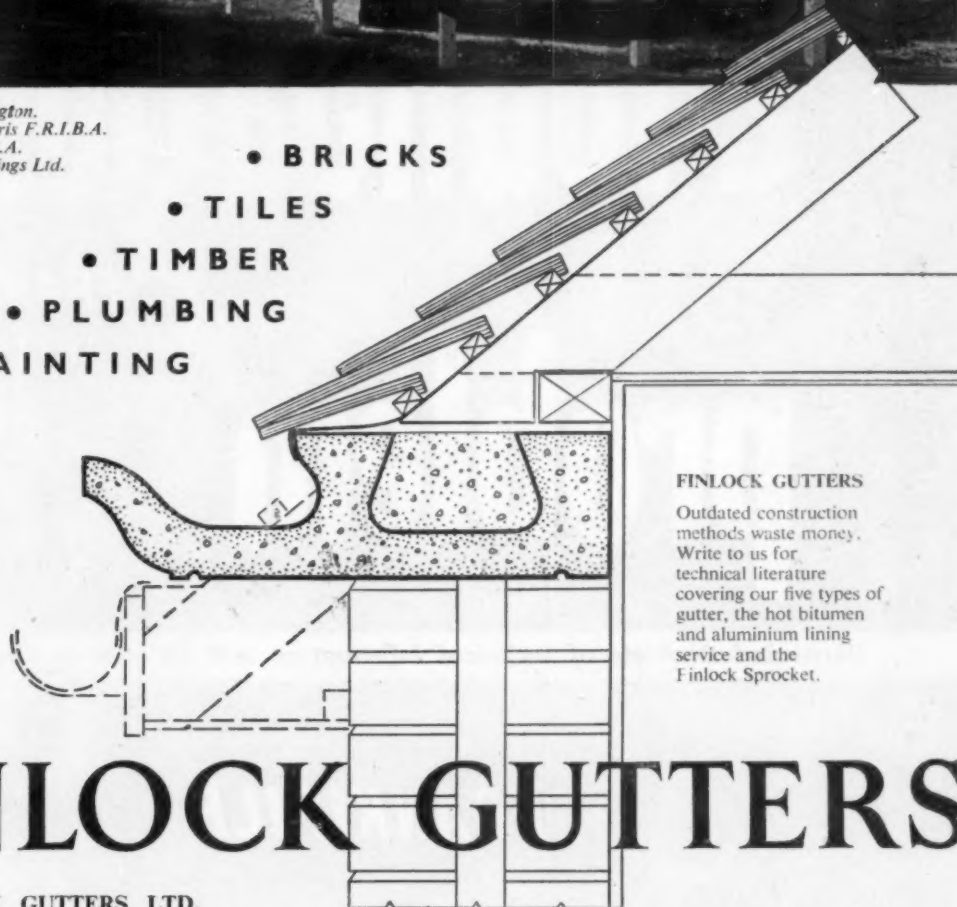
All reinforcement enquiries please, to: 17 Buckingham Palace Gardens, London, S.W.1





*Popham House, Wellington.
Architects : R. O. Harris F.R.I.B.A.
D. J. Simpson A.R.I.B.A.
Contractors : H. Hoskings Ltd.*

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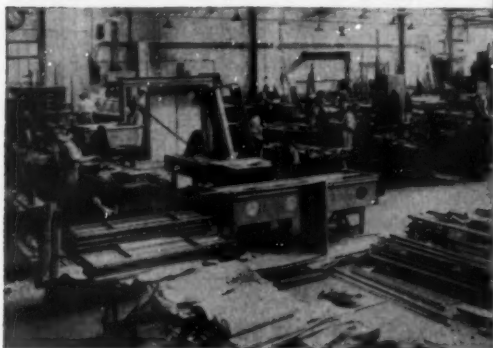
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ORGANISATION

More than meets the eye...

There is far more in joinery than meets the eye. A thorough knowledge of timber, close attention to detail, and unfailing accuracy—these are but a few of the qualities which distinguish all joinery work by the Maple-Martyn Organisation.

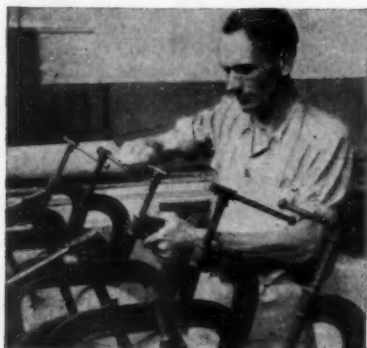


THE JOINERY SHOP



ASSEMBLY

This scene of ordered activity in the joinery shop indicates the number of contracts entrusted to Maple-Martyn who apply the same high standards to all contracts, large or small.



ADJUSTMENT

A twist in the wrong direction may make all the difference between success and failure. Yet in the trained hands of the craftsmen at Maple-Martyn nothing is left to chance. Their skill lies in knowing exactly how to achieve the right result.



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Many permissible minimum weights greatly reduced

The new revisions
of B.S.602 for Lead pipe
reduce the minimum weights
for soil and waste pipes
and represent
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17%

Tables incorporating the new standards have been prepared and are available in a revised edition of "CONCISE INFORMATION ON LEAD PIPE" free on request.



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The new Flavel National instantaneous sink gas water heater is the perfect unit for use either alone or in addition to a solid-fuel boiler system.

Your clients will be quick to grasp the advantages of having plenty of really hot water *instantly* available all the year round and at any time of the day or night. In summer, a boiler system can prove an expensive nuisance; a National in the kitchen does away with

the need for fires when the weather's warm and ensures that there's *always* plenty of hot water on tap for early morning shaves, quick cups of tea and a thousand other things.

The high-quality and perfect finish of the National ensure trouble-free performance throughout its long life; the architect who specifies or recommends it can rest assured of the future comfort of his clients.

THE FLAVEL NATIONAL INSTANTANEOUS SINK GAS WATER HEATER

- ★ Provides a full half-gallon of piping hot water every minute.
- ★ A broken feed type heater, with all working parts totally enclosed. Designed for wall fixing, it works equally well on both hard and soft water.
- ★ Slim, easily detachable one-piece steel case finished in sparkling, clean-at-a-wipe cream or white vitreous enamel.
- ★ The removal of a single knurled nut enables the heat exchanger to be unhooked and cleaned in less than five minutes by the consumer.
- ★ 12 Bray burner jets require no maintenance in normal use. Rating: 35,000 B.Th.U./hr. Connections: gas $\frac{1}{2}$ " B.S.P.; water $\frac{1}{2}$ " B.S.P.
- ★ Height 25 $\frac{1}{2}$ ", width 8 $\frac{1}{2}$ ", depth 7 $\frac{1}{2}$ ", weight 20 $\frac{1}{2}$ lbs. 6" spout supplied as standard, but 9" 12" or 18" spouts are available.

Recommend your clients to **SEE A FLAVEL FIRST!**

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STEEL ROLLING SHUTTERS

The illustration shows a Mather & Platt hand-operated Steel Rolling Shutter, one of several installed for a Company in Bombay.

Built on sound engineering principles, M. & P. Shutters are robust in construction and neat in appearance. They can be used in any type of building where there are large openings to be covered: arranged for hand or electrical operation.

MATHER
PARK WORKS

AND

PLATT

LIMITED

MANCHESTER 10



Our problem was to assemble heavy plant and material while our new extension was being built. We solved it by laying the floor first—Stelcon steel-clad Rafts, the finest heavy duty floor I've struck in a lifetime of experience.

The whole operation was dead easy. We just laid a bed of sand 4" deep, evenly compacted over level topsoil; brought in our rafts and lowered them into position by mobile crane. And there was our floor, ready for immediate traffic.

Each raft weighs about one ton. It is doubly

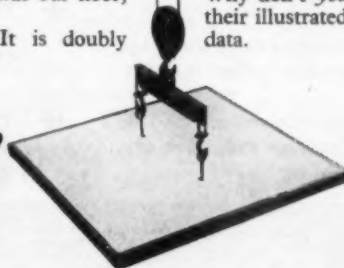
reinforced, bound with angle iron, and faced with the Stelcon steel-clad wearing surface.

We found that by laying the floor first, the remaining building work was speeded up; saving us 7% in overall cost.

What interests me, is that Stelcon Raft Floors have been in service for 18 years, without costing a penny in maintenance. That's quite a consideration.

Why don't you get in touch with Stelcon; ask for their illustrated booklet, it contains all the technical data.

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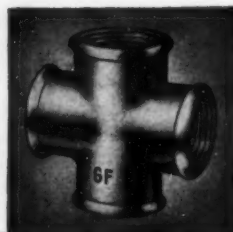


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pipe fittings



No need to cast about for dependable fittings when you can be sure of **GF**! With **GF** Pipe Fittings you have all the good points: finest British Whiteheart iron, clean bore, beautiful finish, accurate threading and perfect annealing, giving a high degree of malleability and maximum installation strength. The range includes all the patterns up to 6" pipe size necessary for Water, Steam, Gas, Oil and Air services, and is supplied in either black or galvanised finish.



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A FACTORY LAYOUT must be flexible, capable of being adapted at short notice to changing circumstances. This applies particularly to storage requirements and works equipment.

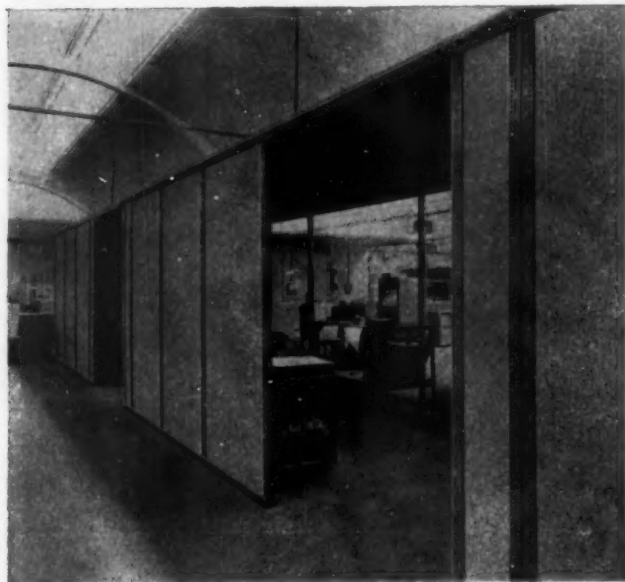
There is no more versatile material for building stores and equipment, exactly to your own designs, than Dexion Slotted Angle. Such Dexion equipment is quick and cheap to install. And any Dexion structure can be readily adapted and altered to meet changing needs. There is no waste, no scrap: Dexion is fully recoverable, and can be used again and again.

When you are planning the building and layout of a factory, Dexion deserves careful consideration at an early stage. This versatile material may bring about important economies, initially and for years to come.

A technical design and estimating service is available free; and for large installations, construction teams will carry out the work if required.



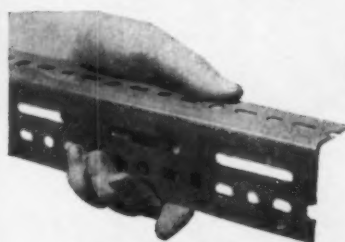
Voeder Root Ltd., of Dundee, have used Dexion extensively in their works to make racking, tables, benches, conveyors. This photograph shows part of their stores, planned on two levels to save floor-space.



Murphy Radio Ltd. rapidly erected this partitioning on a Dexion framework, to give a shaded area for testing television sets. Dexion can be used with plywood, asbestos sheeting, corrugated metal, hardboard or any similar cladding material.

GET THE FACTS

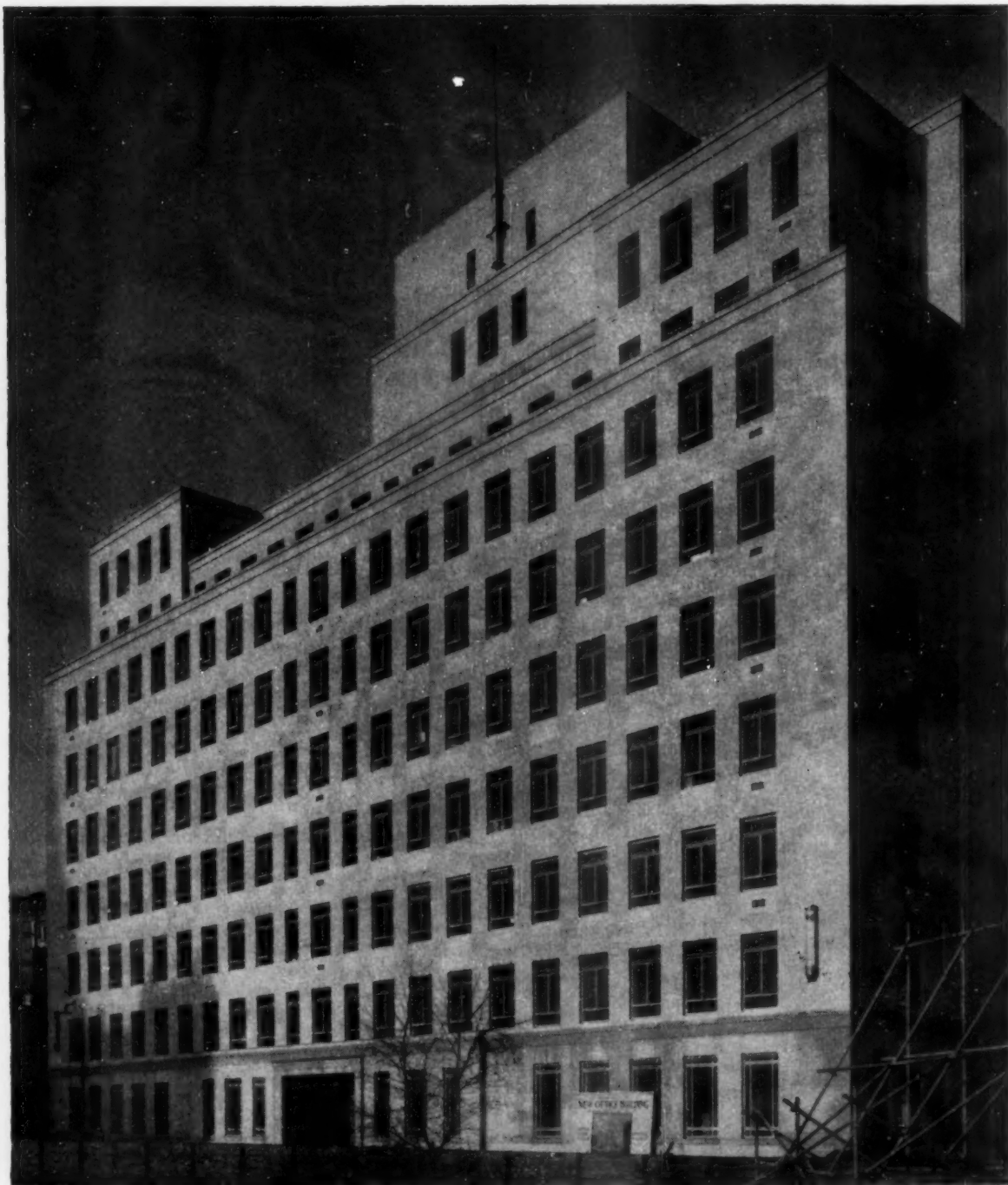
Dexion 225 is sold in packets of ten 10-ft. lengths, complete with bolts. Steel Dexion (price from 1/3½ to 1/5 per foot) is rust-protected, stove-enamelled. Where a light but strong, non-magnetic, non-corroding material is required, use Alloy Dexion (full technical details and prices on request). Send today for sample piece of Dexion and illustrated booklet AU. 144 showing many uses in industry. Dexion Ltd., 65 Maygrove Road, London, N.W.6. (Telephone MAIda Vale 6031-9.)



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REGD.

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Architect: Arthur S. Ash Esq., F.R.I.B.A.

has been used in the building of Garrard House and Haberdashers Hall to the extent of 30,000 cubic feet

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SLIDING DOOR GEAR

FOR THE WORLD'S BEST

Specify

ELLARD



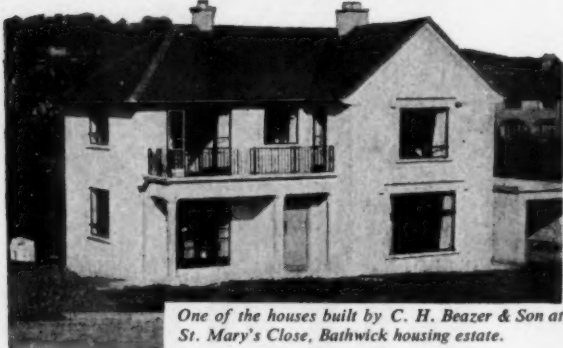
Much valuable space can be secured by the appropriate use of sliding doors in the modern dwelling house. The busy housewife will find her work considerably reduced by having easy access from room to room, as can be seen by the illustration at left. The awkward manoeuvring when "getting around" with cleaning equipment, or at meal times, is entirely removed by the use of sliding doors. In addition, free and complete ventilation of all rooms can be quickly obtained giving a general feeling of light and airiness at all times. There are other advantages which will readily occur to discriminating architects. The all-round efficiency of sliding doors can only be maintained by using first-class door gear. Specify ELLARD "Estate" Sliding Door Gear—it is the best of its kind, competitive in price, smooth and trouble-free in action. ELLARD Door Gear is used on most large housing estates.

Easy access to and from the garage, and unobstructed working space, are valuable assets to the motorist. The illustration at right shows a typical example of ELLARD "Radial" Sliding Door Gear as supplied to numerous private and housing estate garages throughout the country. ELLARD "Estate" and "Radial" Sliding Door Gears can be readily obtained from your nearest Ironmonger or merchant.



CLARKE ELLARD ENGINEERING COMPANY LTD.
WORKS ROAD : LETCHWORTH : HERTFORDSHIRE : TELEPHONE 613/4

BATH is getting a new look ..



One of the houses built by C. H. Beazer & Son at St. Mary's Close, Bathwick housing estate.

...and Electrolux Refrigerators too!

It's significant that Electrolux Refrigerators are now incorporated in the majority of new houses being built at Bath. At St. Mary's Close for instance, C. H. Beazer and Son are building some 70 houses—some already completed—and almost every one includes this important aid to better living.



Photo shows M.151 installed at St. Mary's Close Estate. The refrigerator is built-in at waist height for convenience.

Along with so many other private builders and architects throughout Great Britain today, C. H. Beazer and Son have found that prospective buyers prefer kitchens which are properly equipped to protect perishable food.

Electrolux excels in easy installation... with all these advantages: No moving parts to wear out. Saves valuable kitchen space. No interference with Radio or TV. Permanently silent operation by electricity or gas. 5 Year Guarantee on the silent cooling unit.

BUILT IN

Electrolux

Silent



REFRIGERATORS

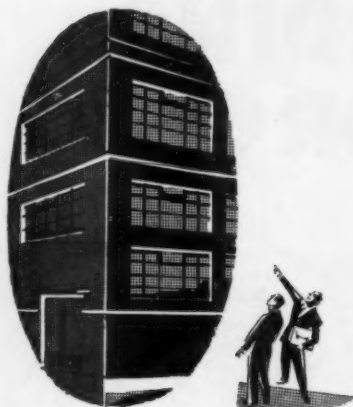
To: Electrolux Ltd, Contracts Dept., 153/5 Regent St., W.1

Please send me full particulars of M.151 'built in' Refrigerators

NAME

AB

ADDRESS



extend

its scope

...without building extensions

Here's your chance to squeeze the Credit Squeeze by avoiding the erection of costly extensions or buying more office space. In most factories and buildings there is some wasted space which quickly-erected, easily-changed walls can turn to good account. Look around your building and see where STEELBRAC Portable Walls can transform space into storerooms, workshops, offices, etc. STEELBRAC is time-saving, narrow in width, strong, alterable, and can be glazed. These advantages mean economical construction, efficient layouts, no production losses. Unit walls that are yours represents a business asset.



Technical advice on planning and erection free for the asking! Our know-how on wall construction is worth money to you!

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STEELBRAC

Portable Walls of Durable Steel

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Tel.: Blackfr'ars 9975

Agent: Timson Bros., 46 Stafford Street, Birmingham 4 (Central 8570)

LANDMARKS IN STEEL



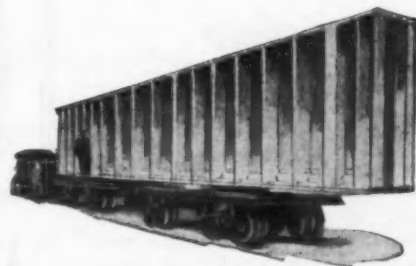
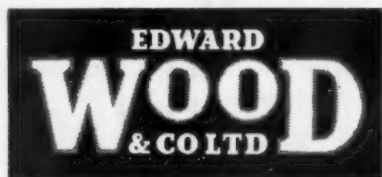
Architects and Surveyors: Harry S. Fairhurst & Son,
55 Brown Street, Manchester, 2.

STEELWORK

for Commerce

SHIP CANAL HOUSE, MANCHESTER

This fine building is the nerve centre of the great inland waterway, The Manchester Ship Canal, and is also the home of The Manchester Chamber of Commerce. Big business is built on solid foundations and once again it's Steelwork by:



Registered Office & Works: **MANCHESTER, 17**
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GOOD NEWS

about retirement pensions

The Chancellor's recent Budget announcement means that SELF-EMPLOYED persons, CONTROLLING DIRECTORS, PARTNERS and employees whose jobs are NOT PENSIONABLE, will now be able to make adequate provision for their retirement.

At last you will be entitled to relief of Income Tax and Surtax on the premiums paid to secure a retirement pension.

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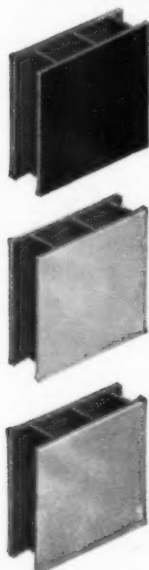
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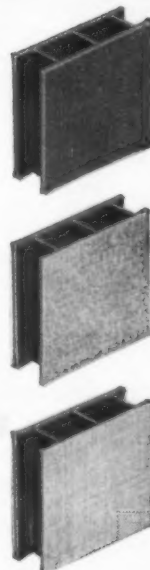


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The Glass Age Development Committee

A committee of architects and engineers, convened by Pilkington Brothers Limited has made proposals for creating a large scale shopping centre in the Black Country area, and a preliminary survey of the project and details of its locality and approach have already been published. The High Market Project has been designed under the direction of the Glass Age Development Committee, by Gordon and Eleanor Michell, A/A.R.I.B.A.

THE HIGH MARKET 3

THE FOUR LEVELS DESCRIBED

"High Market," which would be sited on the high ground formed by Turner's Hill and Darby Hill in the Black Country, has four levels. The top one for shopping, the one below for service and two levels below that for parking. Plans of each level are given on these two pages.

CIRCULATION

The circulation is the key to the whole planning of "High Market" as a shopping centre. There are four types of circulation as follows:

1 Customer's transport:

There are four entrances for the higher of the two car parking levels and two for the lower. The lower one is also for buses which go in one side and out the other.

2 Goods and Employees:

There is a one-way circulation all round the service floor with entrances at each end of the building at hill-top level. Goods are unloaded at the individual stores below each shop. Employees park their cars on this level. The two department stores have goods lifts with unloading bays in the centre of the building.

3 Customers:

Customers take the lifts nearest to their car parking lot or the bus station and are carried to the general shopping level above the service floor. On this level, movement is entirely pedestrian, supplemented by an articulated platform moving continuously in both directions all round the outside of the building.

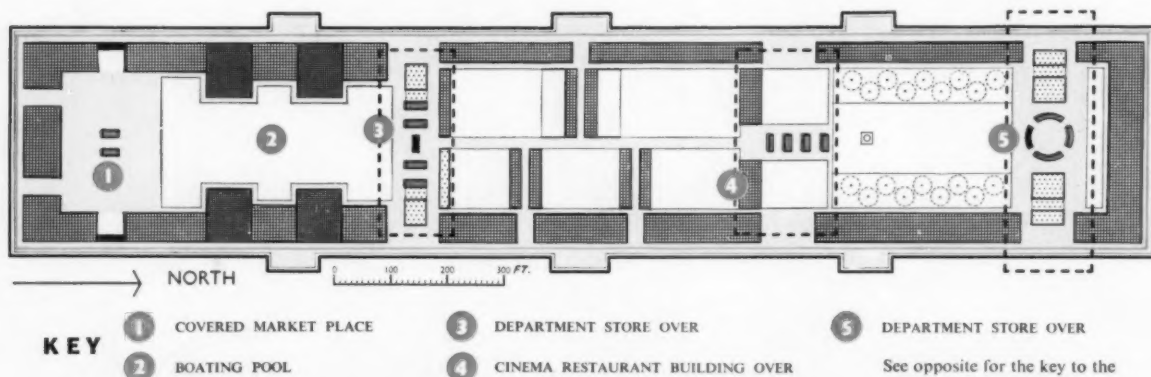


GENERAL VIEW OF "HIGH MARKET"

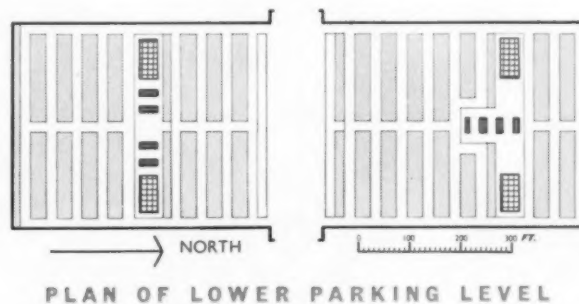
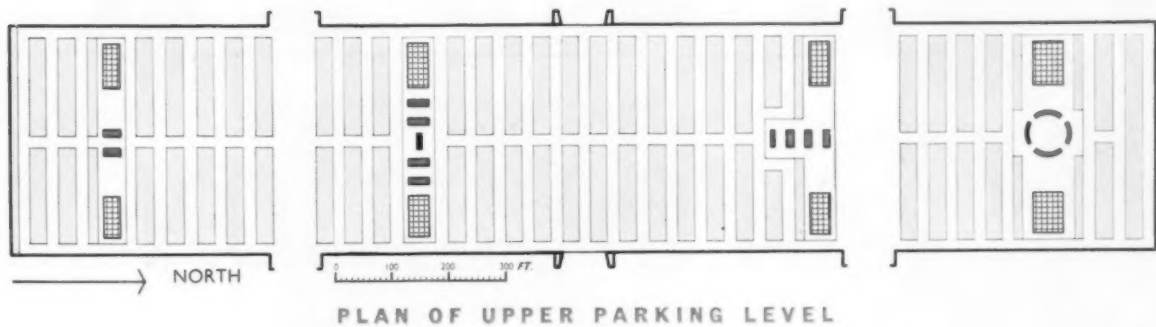
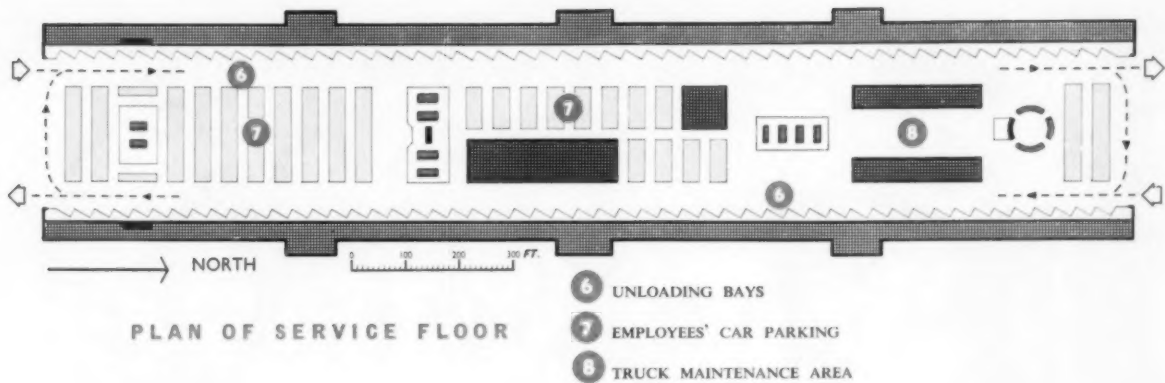
4 Parcels:

On getting out of their car or bus, customers obtain a colour token to correspond with the parcel pick-up station nearest to their lift, and an individual number. Their purchases through the "High Market," except those bought in the covered market and the closed arcades, are marked with their colour and number and placed in the shop's own vertical parcel chute. This saves considerable labour in delivery. The parcels are taken down the chutes in continuous bucket lifts and land on a conveyor belt which moves the whole way round the building. At 8 points on this belt (which are exactly above the 12 pick-up stations in the car park) an attendant takes the appropriately coloured parcels off the belt and puts them into the chutes for the pick-up station below. There they are sorted into numbered pigeon holes and collected by the customers as they return home.

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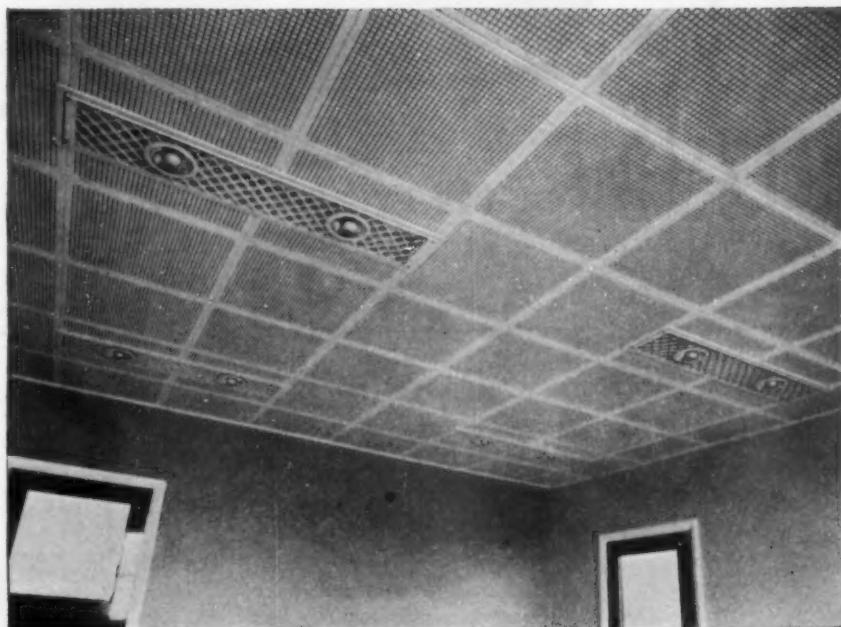
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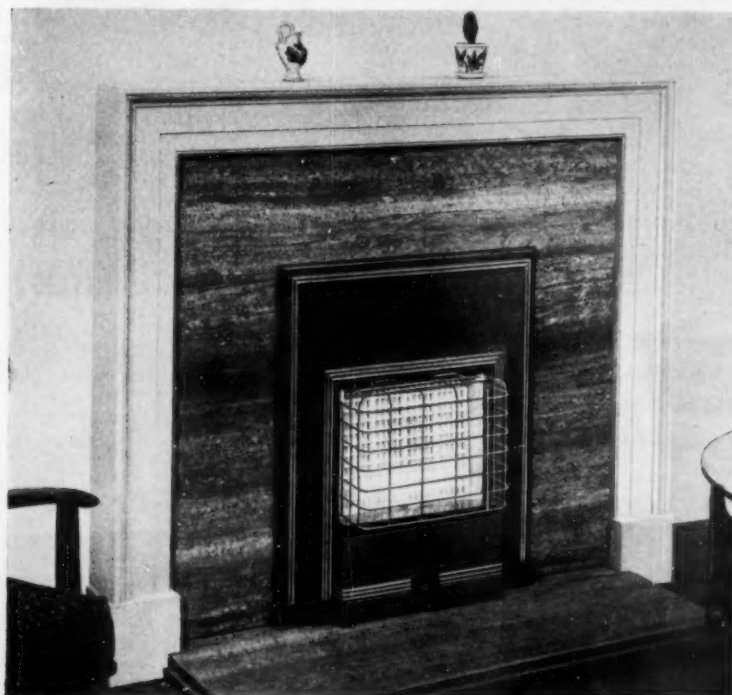
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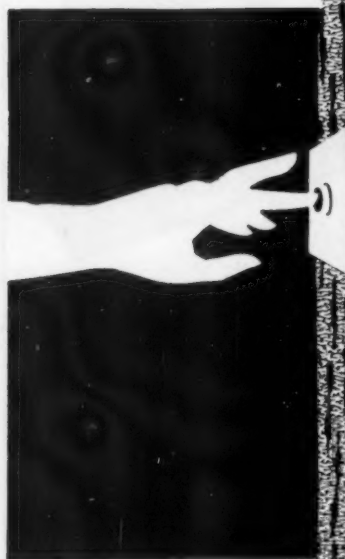
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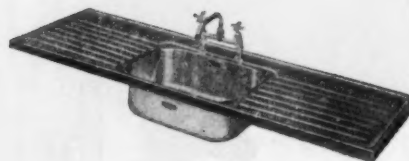
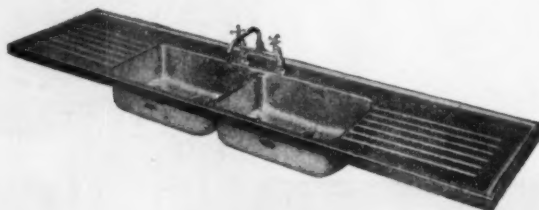
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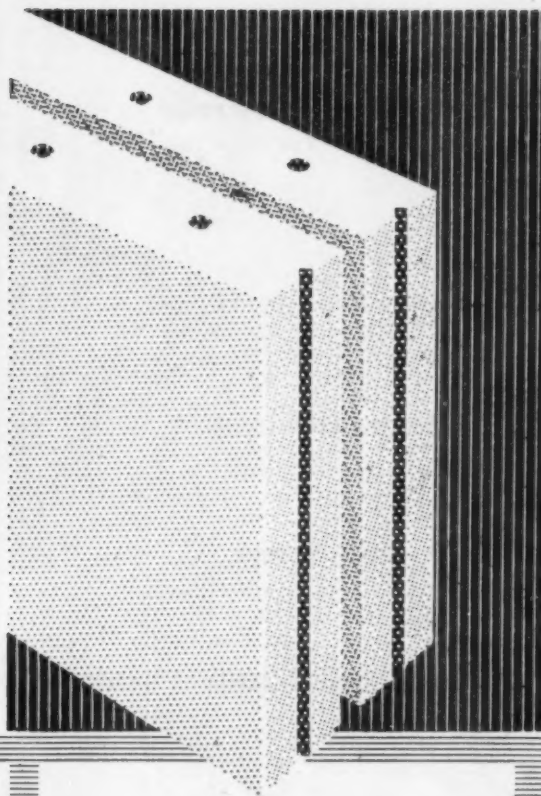
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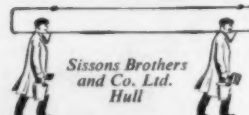
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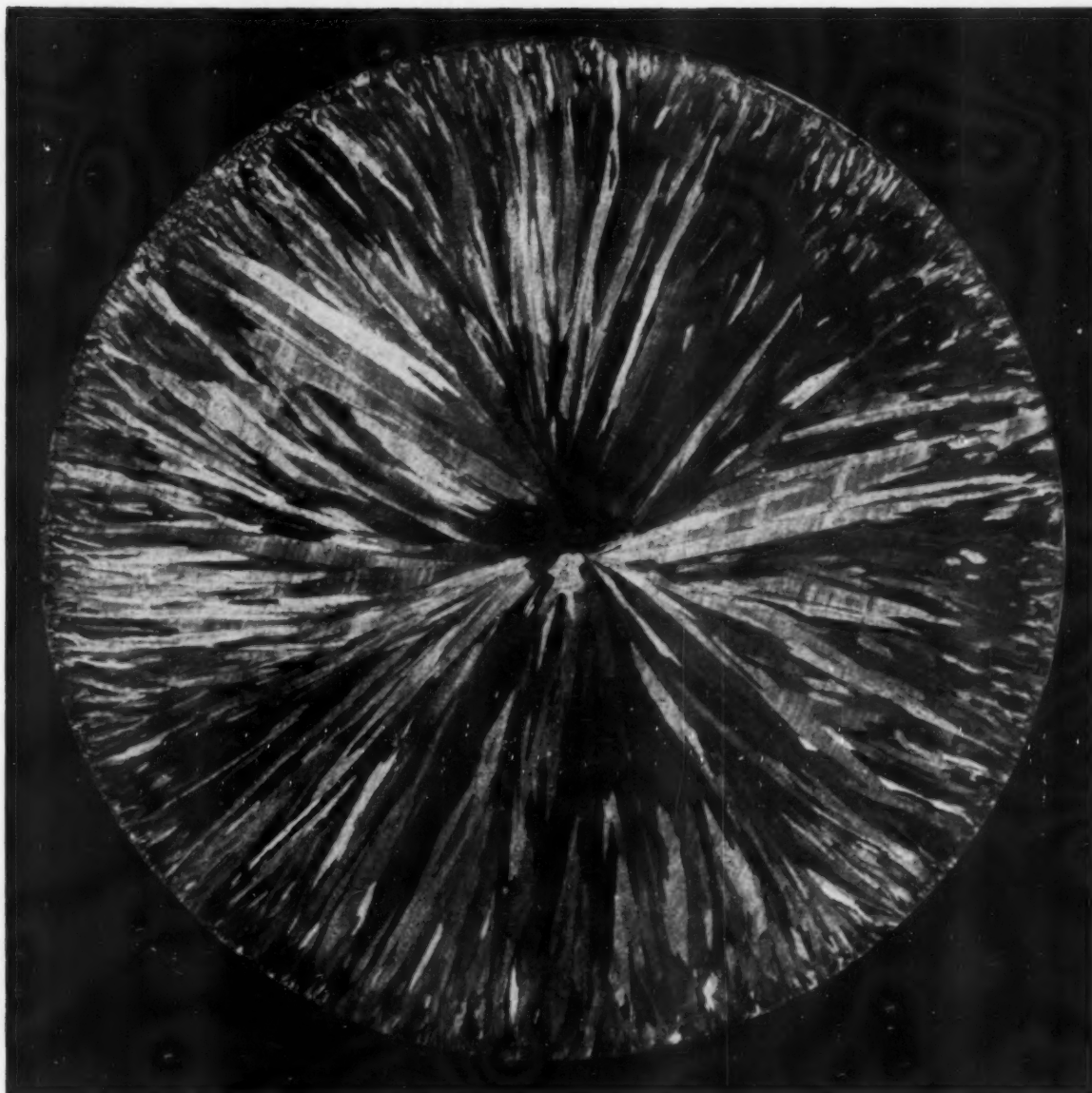


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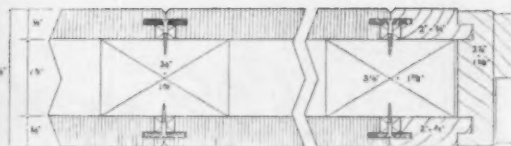
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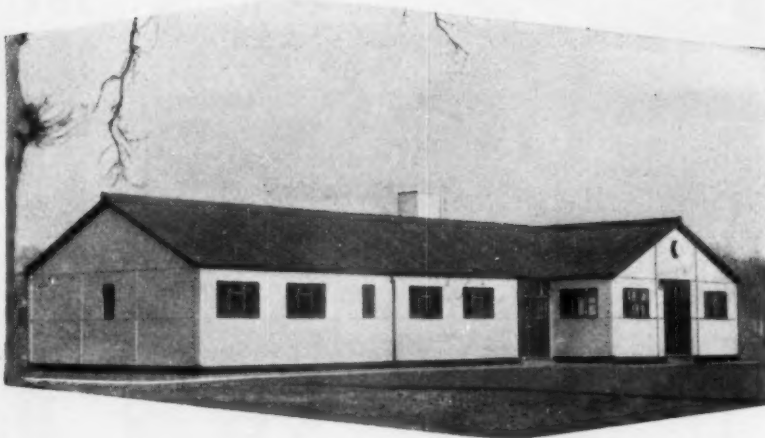
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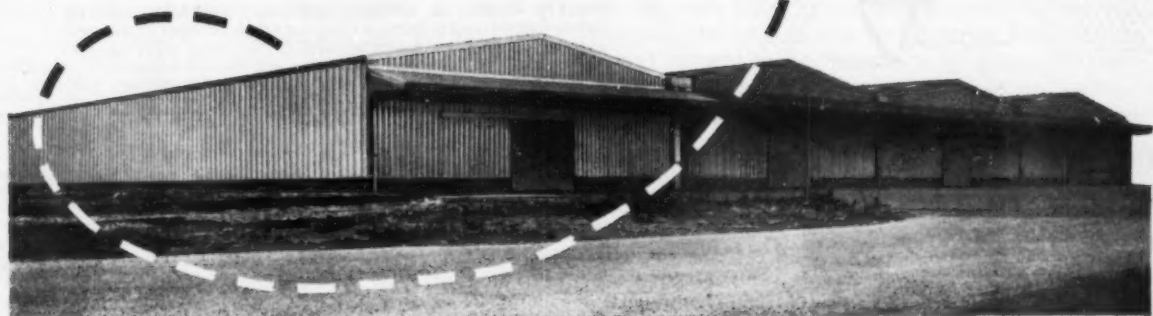
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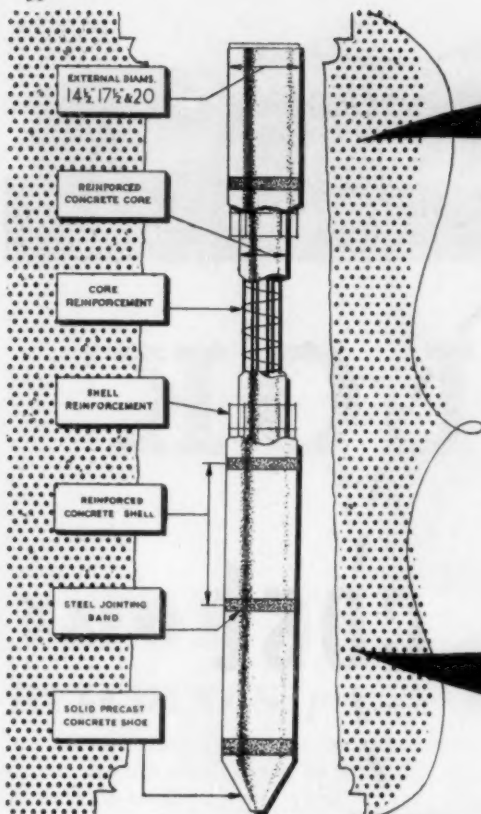
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THE R.I.B.A. ELECTIONS

RESearch into back numbers of the R.I.B.A. Journal and Kalendar gives a gloomy picture of the interest shown by members of the R.I.B.A. in their governing body. Over the period of ten years since the war, the average poll at Council elections has been almost exactly thirty-three per cent. Ballot papers are sent out to every member resident in the United Kingdom and the Republic of Ireland—to quote the bye-law—and only one-third return them. The lowest vote was thirty per cent. in 1947 and may well be explained by the large number of members who had not then been released from the forces and were still serving abroad, though their recorded addresses were in the United Kingdom. The highest poll was in 1952 at just under forty per cent. It fell again to the usual thirty-three per cent. in 1953. Statistics taken by classes of membership are unexpected. For instance, in 1952 forty-six per cent. of Fellows voted, forty-two per cent. of Associates and twenty-nine per cent. of Licentiates, while in 1955 the percentages were forty-three, thirty-four and twenty-three, respectively. Here another curious fact comes to light: Fellows take more interest in Council elections than do Associates.

Admittedly the elections for the R.I.B.A. Council are not contested on the same basis as parliamentary or local government elections. Only one-third of the elected members must go the hustings each year. That comprises one-sixth of the total Council, for half the total are elected or appointed by Allied Societies. The hustings are very different too. It has not been the custom in the past for candidates to canvass, or to publish any sort of programme or even any statement of views, and there has been no separation into parties, even on purely architectural matters. It would be a misfortune for the profession if it were otherwise.

How then, does the elector choose his candidate? Judging from the record of successful candidates in past elections, the choice is made largely by the extent to which the candidate's name is known in the profession. The winner of an important competition has an excellent chance as his work will be widely illustrated. Candidates are supported largely on the strength of their executed work. It seems proper that the leading

exponents of the profession should form its governing body and it is for the best that the people with axes to grind should not be able to get elected on the strength of a publicity campaign planned for the particular purpose.

In the last two years, there have been several troublesome questions under study by the profession, the most difficult undoubtedly being that loosely referred to as "trades unionism". The R.I.B.A. Council has been criticised and accused by some of a certain lack of purpose. The criticism was not altogether fair, but the Council brought it on themselves by failing to give members at the proper time, the full facts set out so ably in the report of the Salaried Architects' Committee.

The most vociferous critics were a number of younger Associates who, at the Annual General Meeting in 1955, bade the Council think again. This was an unfortunate development. There is no doubt that through that action the Council lost some confidence and the profession lost face in the eyes of kindred professions.

If there exists a fair and democratic procedure for the election of a governing body, that procedure ought to be used properly and fully, and the body should then be left to get on with governing. To elect a governing body and then to apply an over-riding veto at general meetings, is asking for trouble. At the best it can undermine the confidence of the Council completely and reduce it almost to an ineffective rump: at the worst it can develop into an irresponsible mob-rule by one section of the membership located conveniently near to Portland Place.

The solution is for all members, and especially younger Associates who form the majority, to take a far more active interest in Council elections, by returning their votes: the ballot ought to reach 75 per cent. at least: and then to leave their elected Council to get on with the job of government without interference.

One further point is worth attention. Members of Allied Societies might ensure that the procedure for electing their own representatives to the R.I.B.A. Council is also designed so as to give every member a say in the election. Perhaps it is. Information on the point is lacking.

EVENTS AND COMMENTS

RIGI AND LUZERN

I was lucky, or careless, enough to include a public holiday in my three days in Zürich when everything was shut and a large proportion of the inhabitants in big boots and plus-fours made off for the mountains. I was swept along in the rush by kind friends. We ascended Rigi in a beautifully designed rack and pinion electric train. At Goldan, where we changed from the main line, I read a notice commemorating the great landslide of 1806 when the top of a neighbouring mountain had descended upon the town quite blotting it out with heavy loss of life. A huge area of barren rock still marks the spot where the landslide began. I often wonder why such things do not happen more frequently.

Although the holiday crowds were mostly very formally dressed they were very gay and there were several family parties in our coach. An accordion player churned out Swiss yodelling songs in non-stop profusion and the crowd joined in from time to time.

From below Rigi looks quite uninhabited but on the way up we passed countless small farms and several fair-sized holiday villages, containing between them some 17 hotels, one of which has two hundred rooms. The only means of access to these hotels is by the rack railway, although I was told that a jeep had been driven to the summit.

Other nation trippers always seem less of a bore than our own and although the large hotel and café at the summit was crowded with noisy people it was all great fun. The view was having a day off in mist and rain but from time to time we had glimpses of the snows and some of the 13 lakes which can be seen on a clear day. After lunch at a table next to an Indian family from Bombay we descended by another railway to Vitznau, the terminal of the original Rigi railway, where the first locomotive is preserved as a monument to its inventor. It is a charming affair with vertical boiler and inclined carriage, more Emett than Emett. It was made in 1873 and bears the No. 1 of the famous locomotive works at Winterthur. From Vitznau we took an elegant lake steamer to Luzern and on the way saw a star class yacht dismasted in a squall while racing.

To continue to write that this or that view or city is lovely cannot fail to be excessively boring, but if you have not seen Switzerland you should make an effort to do so. The combination of lake mountain and human settlement is infinite in variety and is nearly always exciting. To my mind, however, there were never enough sailing boats but this may be because they fit out much later than we do. Luzern has a curious covered wooden bridge connecting a bastion which formed a part of the city walls to the shore. Much of the original timber has been replaced but there are a number of curious paintings of knights, on panels fastened to the trusses.

The town is full of soldiers. These lads do 13½ weeks whole-time training and are then called up every year

for three weeks. They looked tough but very small and young. The Luzern police, unlike any others I saw, wear imitation British police helmets, which being somewhat truncated, look like carnival hats made of papier maché. To my surprise I saw two very English figures riding and leading four horses through the town. They must have been part of the subsequently victorious British team at the horse show there.

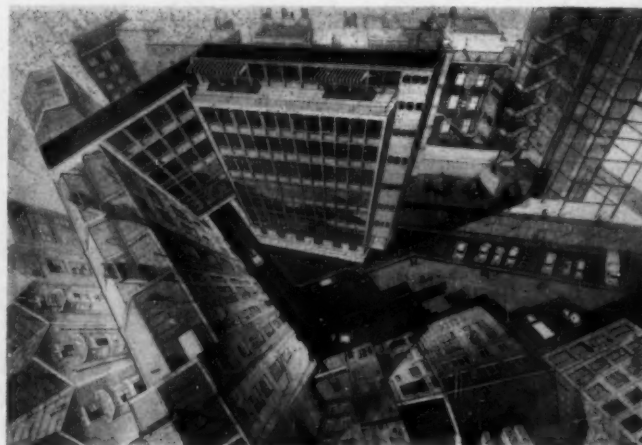
After many cups of coffee we returned to Zürich by train and whether it was the air or the excitement I do not know but I felt as if I had not only walked up Rigi and down again, but had swum the Vierwaldstättersee from Vitznau to Luzern.

GENEVA

Leaving Zürich by an early train next day I arrived in Geneva—or to be consistent Genf—in time for lunch. The first stunning glimpse of Lake Lemman far below and the Alps beyond, made even the Swiss passengers gasp. One moment you are in a lush smooth valley of fields and trees then a short tunnel and suddenly this more than grandiose view spread out with the lake disappearing in the distance. The southern slopes are one great vineyard and, as the incredibly neatly arranged vines had hardly begun to sprout, formed an unbroken area of brown earth in contrast to the green of the valley. These birdseye views have lost something since one took to air travel but they have the advantage that they can be held still like a lantern slide, but not from a Swiss train as it rushes through tunnels round bends and under bridges.

My hotel in Geneva, where the traffic does the oddest things, was right on the lake but since my room was at the back I gained little advantage from it. I had lunch in the blazing sun reflecting that hours locked in a committee room were going to be hard to endure. Two committees of the I.U.A. were in session for the weekend and no doubt the results of their work will be published in due course. I can only record here some of

At the Royal Academy: Grafton Galleries Project. Architects Newman, Levinson & Partners. Drawn by W. Newman.



the lighter moments. My committee which sat from 2 until 7 was lucky in having my old friend Hugo van Kuyck as its chairman. He knows very clearly what he wants and is probably better qualified than anyone else in Europe to talk about industrialisation in building. Also with us was Janzen from Holland, a wonderful man of 65 who looks no more than 40 and behaves as if he were 20. It was he who was largely responsible for saving some of Holland's most precious paintings from the Germans. In a moment of hot pursuit he personally gave the order to roll up Rembrandt's "The Night Watch" to enable it to pass under an obstruction. Fayeton from Paris and Chemineau from Rabat where he keeps a dozen horses, put the French view with infinite precision and clarity and Zietzschmann of Zürich who edits *Bauen & Wohnen* represented Switzerland.

Pierre Vago the secretary general of the I.U.A. and Jean-Pierre Vouga, his assistant flitted between the committees, stirring them up or smoothing them down as necessary.

We were lucky having no language difficulty; the other committee, where we were represented by Peter Shephard, had a charming Russian whose name I cannot attempt to spell and a Pole who had no French. This committee included Le Mèrre from Megève where he lives in the snow for six months of the year supported by a most expensive oil-fired central heating system. He visits Paris twice a month and was at the Beaux Arts with Corfiato and Louis de Soissons. Brunisch from Karlsruhe in round hat and grey suede gloves spoke for Western Germany. Ginsberg, one time collaborator with Lubetkin had his lovely wife with him. She was at one time business manager to Jean Pilar whose Theatre National Populaire was in London recently. Ginsberg is a fine linguist and helped considerably with his committee's language problem. Groszmann from Holland and Lucien de Vestel another old friend from Brussels also brought their charming wives. The committees continued to meet at all kinds of odd times.

A mammoth tour of new buildings took place on Saturday afternoon led by Jean Hermès who seemed to me to have stepped straight out of the B.B.C. programme "En Voyage". He it appears is the bright boy among Geneva architects. We saw a good deal of his work including his own house where we arrived in force while his family was supping. His work is of the international school and to my mind too full of slick tricks. Some of his apartment buildings were pleasant enough but as we saw the insides of none it is difficult to write about them. The largest building we saw was I believe Honegger and was 15 to 20 stories high and about 200 feet long. It was a block of flats in which almost the entire ground floor was given up to a vast entrance hall. No one was surprised to hear that these beautifully furnished buildings cost about £1 per cubic foot to construct. A civic welcome was given in the Alabama Room at the Town Hall. In this room the Geneva Convention and its revision were signed as was the treaty of Alabama, between the United Kingdom and the United States. Can you honestly say that you had ever heard of this treaty? It arose from the activities of British built Southern States owned warships in the American Civil War.

These ships, of which the Alabama was the most famous, all but ruined the Confederates trade. After the war an Arbitration Tribunal was set up to settle the Alabama claims. It awarded the U.S. of North America \$15,500,000 against Great Britain. The cheque is said still to be on view somewhere in Westminster Palace.

Also in the room is a plough made from the swords of some keen American officers but that is another story.

An official dinner presided over by Jean Tschumi, president of the I.U.A., was the climax of the meeting. Speeches were short and amusing. Tributes were paid to the organising secretary Rivoire and his helpers for their hard work.

It certainly was a most friendly gathering and I hope you will find that the work that was done and the decisions that were taken were worthwhile.

ABNER

NEWS

Notes from the minutes of the R.I.B.A. Council meeting held on the 1st May 1956

Appointments of R.I.B.A. Representatives

(a) *Code of Practice Committee on Roof Construction for Houses*—C. M. Vine (F).

(b) *Code of Practice Committee on Flues for larger Appliances in Buildings*—F. H. Heaven (A).

(c) *Conference on Installation of Domestic Solid Fuel Appliances, convened by the Coal Utilization Council*—Clifford Culpin (F) and John Pinckheard (A).

(d) *R.I.B.A. Architecture Bronze Medal: Birmingham and Five Counties Architectural Association: R.I.B.A. Representative to serve on*

Jury to consider Award—Leonard C. Howitt (F), President, Manchester Society of Architects.

(e) *Joint Committee of Professional Institutions to negotiate Remuneration of part-time Lecturers for Local Education Authorities*—J. Kenneth Hicks (F).

R.I.B.A. Award for Distinction in Town Planning

The Council approved a recommendation that the R.I.B.A. Award for Distinction in Town Planning should be conferred upon Dr. J. Leslie Martin (F) and Mr. Peter Shephard (A).

R.I.B.A. Architecture Bronze Medal: the York and East Yorkshire Architectural Society

The Secretary reported that the Jury entrusted with considering the award of the R.I.B.A. Architecture

Bronze Medal in the area of the York and East Yorkshire Architectural Society for the three-year period ending 31st December, 1955, had made their award in favour of the Cecil Cinema, Kingston-upon-Hull, designed by J. P. Taylor, M.B.E. (F) in association with A. K. Bray (Student) and J. R. Hobson (A). Formal approval was given to this award.

John Nash Memorial

It was agreed that the Royal Institute should collaborate with the St. Marylebone Society in arranging for an unveiling ceremony for the memorial bust of John Nash which is being placed in the portico of All Souls Church, Langham Place.

Provision of Explanatory Drawings with Bills of Quantities at the Time of Tendering

The Council considered a recom-

mendation from the Practice Committee resulting from a proposal originally put forward by the Joint Consultative Committee of Architects, Quantity Surveyors and Builders. This proposal was to the effect that a set of explanatory drawings should be supplied with Bills of Quantities at the time of tendering.

The point was made that these would result in closer tendering since it gave tenderers a better opportunity to assess the requirements of the work than could be obtained from a cursory examination of drawings in the architect's office.

The Council gave approval to this proposal in principle but in so doing emphasized that the drawings concerned were solely for the purpose of explaining the nature of the scheme and would not form part of the contract in any sense.

Amendment to Rules: The Devon and Cornwall Society of Architects

Approval was given to an amendment to the rules of the Devon and Cornwall Society of Architects to make provision for the opinions of Student members to be expressed at meetings of Branches of the Society.

The Royal Academy

The congratulations of the Council were conveyed to Mr. Marshal Sisson (F) on his election as an Associate of the Royal Academy.

Architectural Control under the Town and Country Planning Act, 1947

The Council gave approval to a report submitted by the Joint Committee composed of representatives of the Public Relations Committee, the Town and Country Planning and Housing Committee and the Salaried and Official Architects' Committee. The report presented a review of the working of the Act in regard to the operation of aesthetic controls. The Joint Committee came to the conclusion that the inadequacy and unpopularity of the controls was only a symptom of the wider failure of the planning machine to justify to public opinion the admitted inconvenience of its restrictions by the conspicuous success of its results, either in the field of creative reconstruction, or in that of protection of the existing scene.

The following were mentioned as among the notable weaknesses of the existing system in these fields:

The Ministry of Housing and Local Government originally visualised as a constructive organization, has gradually been reduced to the role of administering the Planning and Housing Acts. Other departments of State have acquired too much power. The regional physical planning machinery has been similarly reduced. Local planning authorities have delegated their powers to officers without the appropriate qualifications to carry out the work. A number of activities whose effect on the landscape is decisive do not come under planning

control, e.g. Agriculture, Public Utilities, Power Stations etc.

At the Local planning level, the report asserts that the key to more effective handling of architectural and landscape problems is to get the right men into the right jobs. In this connection architects are the men properly qualified to be employed in a capacity which should permit creative work as well as the routine of development control.

The Council gave approval to the following statement of the Royal Institute's policy.

A. That all County Boroughs should employ an Architect as a Chief Officer and that he should also be responsible for Town Planning.

B. That all large Boroughs and Urban Districts should employ an Architect, with local planning duties depending on the degree of delegation.

C. That in cases where County Planning Officers are not Architects, County Architects should advise Planning Committees on development control in small towns and in rural districts and villages, and should be adequately staffed to enable them to deal with broad problems of landscape as well as building.

The Council authorised the Joint Committee to continue with a study of methods whereby local authorities generally might be persuaded to put these principles into practice.

COMING EVENTS

The Royal Institution of Chartered Surveyors

May 28 at 5 p.m. Annual General Meeting to receive the Report of the Council for the Session 1955-1956, at 12 Great George Street, S.W.1.

The Architectural Association

May 30 at 8 p.m. Ordinary General Meeting. "Health Service Buildings other than Hospitals," by Dr. Stephen Taylor, at 34 Bedford Square, W.C.1.

Royal Institute of British Architects

May 30-June 2. British Architects' Conference, Norwich.

Council for Visual Education

May 31 at 3 p.m. "The Appreciation of Design" by J. F. Wolfenden, C.B.E., M.A., Vice-Chancellor of Reading University. Sir Patrick Abercrombie will preside. At The Housing Centre, 13 Suffolk Street, S.W.1.

LAST WEEK'S ISSUE

The Architect for the New Faculty of Arts Building, Exeter University, pictured on page 517 is Sir William Holford.

On page 527 the architects' for Golden Lane Housing are Chamberlin, Powell and Bon, and not Chamberlin, Powell and Moya.

In Parliament

Fixed Price Tenders

Captain Duncan asked the Minister of Works whether he would make a statement about the possibility of returning to fixed price tendering in Government building contracts. Mr. Buchan-Hepburn said that he had had discussions about this with representatives of the National Federation of Building Trades Employers, the Federation of Civil Engineering Contractors and representatives of the building and civil engineering trades operatives; and explained that arising out of the Government's wish to move towards a return to fixed price tendering it had been decided as an experiment to invite tenders on a fixed price basis for selected projects of values not exceeding £100,000 for which his Department was responsible. He felt sure in view of the general advantages to be gained by all concerned that he would have, in this experiment, the goodwill of the industries concerned. He emphasised in response to further questioning that this was an experiment, and that if a good start were made it was hoped to extend the practice to other departments. (May 15).

Still Deferred

Mr. Frederick Willey wanted to know what were the Government's plans for a National Science Centre. Mr. Bevins, Parliamentary Secretary, Ministry of Works, said that in 1952 it was stated that the planning of the Science Centre had had to be deferred. That position was still unchanged. Plans for a new Patent Office and Scientific Reference Library on the South Bank were, however, under discussion between the Departments concerned (May 15).

Glasgow Skyscraper

Mr. John Rankin asked the Secretary of State for Scotland whether he would revoke the planning permission granted to Littlewood's Mail Order Stores Limited to erect a 14-storey building on ground between Miller Street and Queen Street, Glasgow. Mr. James Stuart stated that the site of the proposed building, which had, he understood, been approved by the Corporation of Glasgow as planning authority, was in an area zoned for commercial purposes in the Corporation's approved development plan. Any question of modifying the development plan, or revoking the permission already given was a matter in the first instance for the Corporation. Mr. Rankin said the firm had abandoned the project because of alarm at the effect of the credit squeeze on domestic spending power. Mr. Stuart said he was not aware of that (May 15).

Cinephone

BIRMINGHAM'S NEW CINEMA

architect: H. WERNER ROSENTHAL

THE Cinephone, Birmingham, is the first all Continental cinema in the Midlands. Architecturally it represents a new departure in the design of cinemas as it derives an architectural experience from the main function of the cinema, namely the screen while the decoration scheme has been made a function of the optical and acoustic requirements.

As a building it has made history as it has been virtually planned and built in under six months. The Lord Mayor of Birmingham had given this scheme his wholehearted support on condition that it could be opened in time for the B.I.F. and a "Brighter Birmingham Week." So an opening day was fixed giving less than six months from signing the contract. It was decided that the only firm who was likely to cope with this task were Bovis and their particular form of contract was adopted.

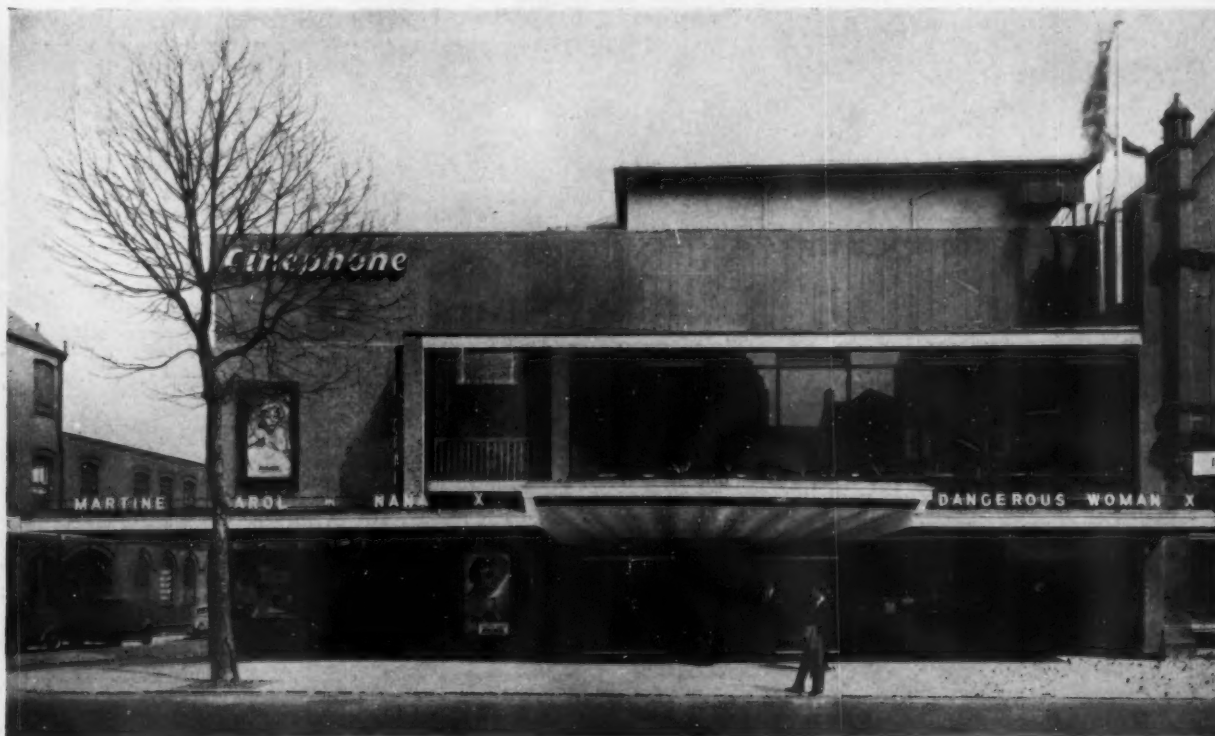
The Problem

The clients had acquired an ancient cinema and it was decided to pull down the whole front to a depth of about 20ft and push out by about 6ft to a new building line approved by the City Surveyor on condition that the

corner of Wrentham Street was kept open to retain the existing sight line.

The existing balcony rakers were to be retained and the main roof was found in reasonable condition but the side walls to Wrentham Street had to be re-clad. Back stage parts could be essentially retained but the whole of the stalls floor had to be reconstructed as it was riddled with dry rot from embedded timber battens. The whole of the ground floor was found to be undermined by countless old drains, culverts and cellars as originally there had been a brewery on that site. The new floor was raked to comply with the new sight lines.

To make the best use of the space under the rakers the cafe was planned on two levels, a lower one under the rakers and a higher one over the entrance foyer. Where the rakers come down too low for head room partitions were inserted to form "alcoves". (See sections.) The wall which originally supported the ends of the cantilever rakers was replaced by columns and the "wavey" lighting troughs over the ends of the "vaulted" ceilings were inspired by the need to hide the end bearings of the rakers over the columns.



Birmingham Cinema

The Exterior

The window wall along the whole of the first floor consists of deep teak mullions acting as a kind of curtain wall. The ground floor consists of show cases surrounded by glass, the flanking walls of the entrance are finished in blacky green marble ("Verte des Alpès") which also forms the plinth to the sales counter. The main entrance doors are plate glass with the handles designed to incorporate the letters J C, for "Jacey Cinemas". The solid end wall is faced in mosaic, steel grey and green with a sprinkling of gold, divided into vertical panels by thin bluey black division lines. The wall beam over the cafe is concrete with exposed vertical shutter marks finished in steel grey exterior emulsion paint. The side along Wrentham Street is faced in slate blue "Stonite" on a backing of "Colterro" lath, covering the stanchions and the old brick work. The ground floor is painted black. Side doors are in yellow.

The Canopy

This is a steel structure with timber fascia and internal framing covered in "Bitumetal" troughs. The underside of the raised centre portion is lined in "Lumenated Ceiling", used here for the first time with fin shape subdivisions. The "lumenated" ceiling continues inside into the foyer and over the sales kiosk. The remainder of the canopy is faced from underneath in brick red "Stonite" except for an 18in wide strip near the wall which is also "Lumenated" ceiling thus visually detaching the canopy from the wall. A panel of fins also illuminates the recessed corner.

The title letters "Cinephone" are built-up box letters in sheet steel, the returns stove enamelled red and the face in white perforated by many small holes. These result in giving a sparkle by night from the encased neon tubes.

Construction

This is chiefly reinforced concrete *in situ* with "Stahlton" planks forming most of the floors. The first floor cantilevered ceiling is suspended from the long wall beam mentioned above, another main beam spans from wall to wall under the balcony carrying the floor of the "lower" cafe, the kitchen and some of the lavatories. The partitions under the raker beams forming the alcoves are fixed to the rakers by "sliding" bearings to avoid any deflection in the rakers being transmitted on the floors. The columns are in reinforced concrete and so are the stairs, spanning from front to back as cranked slabs.

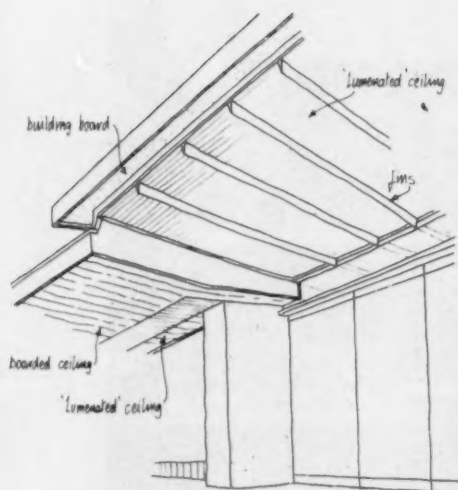
Suspended ceilings and troughs are of expanded metal and plaster as "fibrous plaster" is frowned upon by the Licensing Justices. The extract ducts in the main ceiling terminate in "Inverted saucers" also made of expanded metal, and suspended clear of the ceiling, the space being covered by open meshed expanded metal. The concave undersides of the "saucers" are sprayed in asbestos.

The Auditorium

The existing ceiling was partly curved and, over the balcony end, flat.

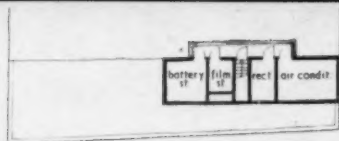
The curved part was sprayed in asbestos spray for acoustic reasons. The aggregate used is self coloured, steel blue, as painting would have destroyed the acoustic properties. The curved ceiling was continued 9in beyond the spandril to give an illusion of being "suspended" which is enhanced by the white painting of the projecting edge. The vertical spandril is painted deep maroon. The ceiling is pierced by numerous "star lights" arranged in "carefully planned chaos". The walls flanking the proscenium back to the balcony front are faced in hardwood "fins", waxed and polished in natural light colour and the space between is filled in by perforated asbestos

Continued on p. 555

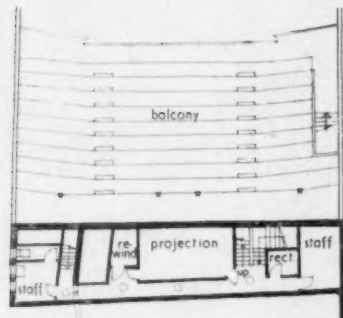


Entrance canopy

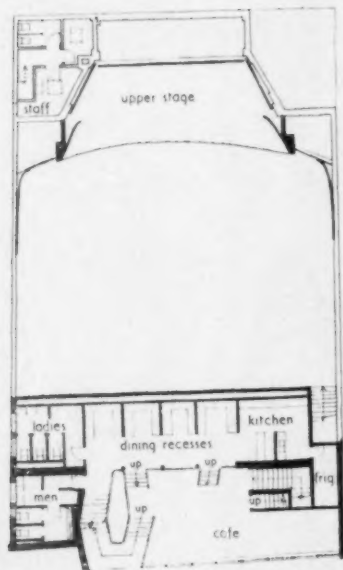




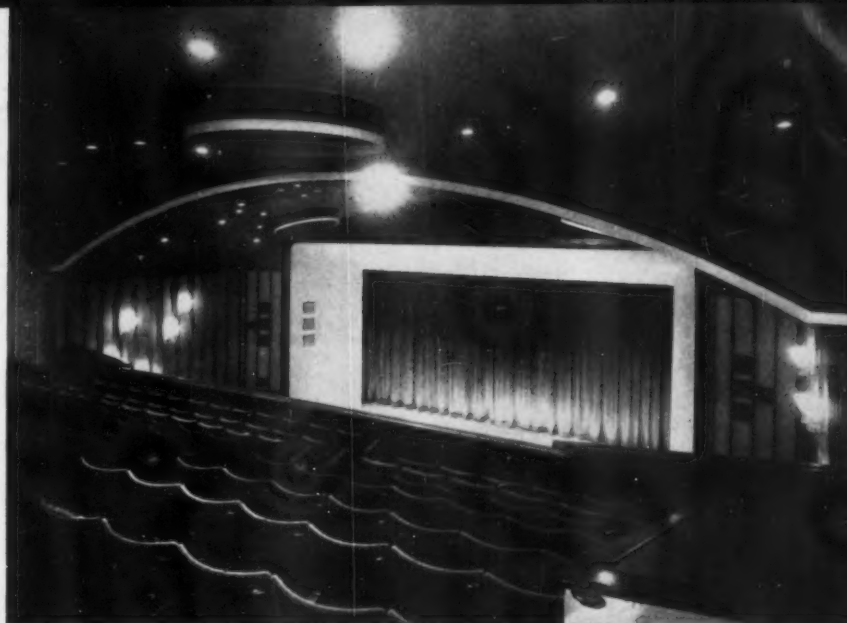
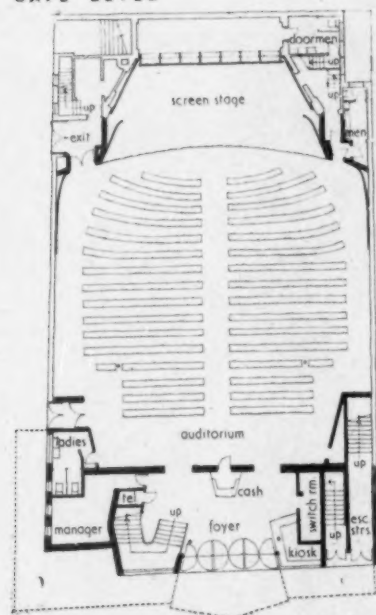
TOP LEVEL



2nd LEVEL



CAFE LEVEL



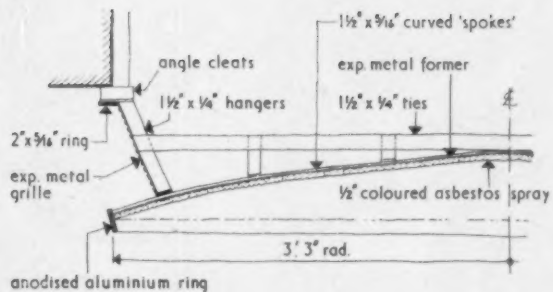
Auditorium



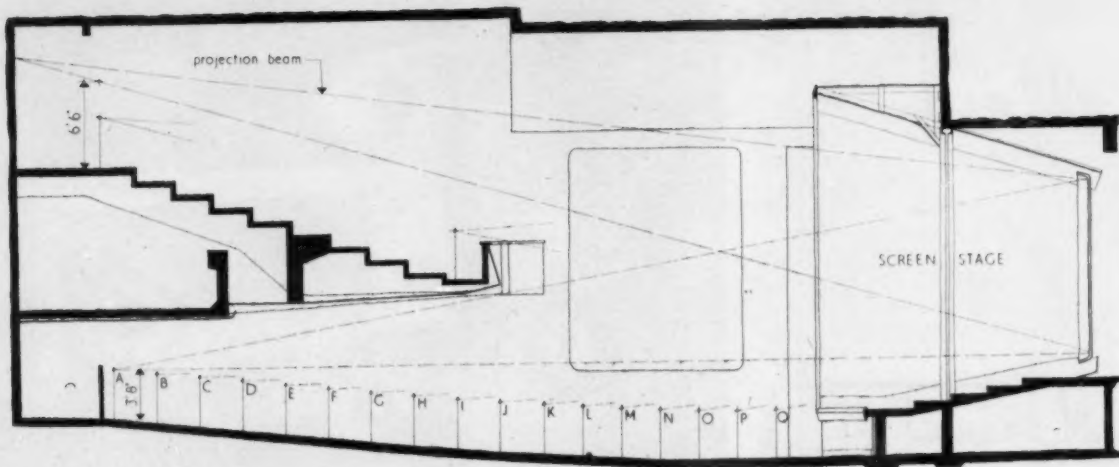
By night

SCALE FOR
PLANS: 1IN = 32FT

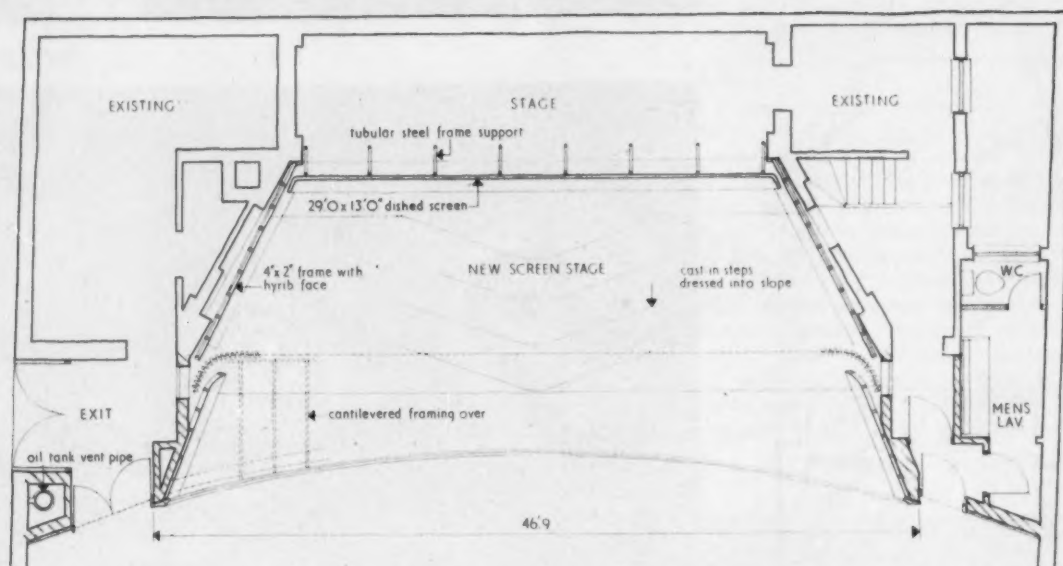
GROUND



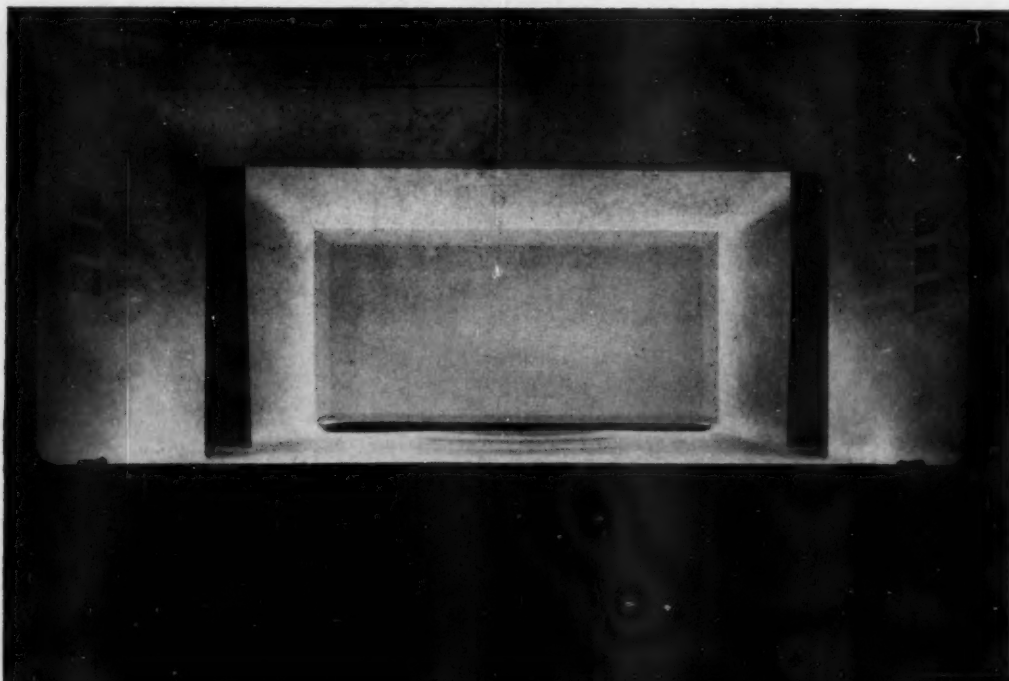
EXTRACT DUCT DETAIL SCALE: 1IN = 16FT



AUDITORIUM SECTION SCALE: 1IN=12FT



THE SCREEN STAGE AND PROSCENIUM ARCH. SCALE 1IN = 10FT





Showcase. See detail on p. 557

Birmingham Cinema

Continued from p. 552

board backed by "Stillite" glass wool quilting, to avoid "flutter". The asbestos panels are painted a warm grey. These walls also carry a cluster of the specially designed bracket lights referred to above.

The balcony had to be cut back for the new sight lines and the new concrete balustrade has been faced with a decorative padding in deep green asbestos cloth, the only fabric permitted by the licensing justices.

The remaining side wall under the balcony and above are papered employing one of Cole's papers, a large scale pattern grey on yellow made washproof. The rear walls under the balcony including the tapering parts of the side walls had to be moderately absorbent and in order to obtain a well wearing fire proof surface of reasonably absorptive properties an open chequer board brick lining was resorted to made of blue bricks with the gaps painted yellow. The low ceiling under the balcony had to be slightly reflectant and so it was finished partly in plaster and partly in rough cast pierced by a glazed version of the "star lights". A continuous lighting trough leads over from the rear portion of that ceiling to the front portion.

The floor is a 6in lightly reinforced concrete slab on a membrane of "Tretol", 3in subfloor and ashes. It is carpeted by a deep green carpet with a pattern of yellow stars based on a design by the architect and woven by the Empire Carpet Co., Kidderminster. The chairs are upholstered in a mustard yellow and the four back rows of the stalls as well as the first three rows of the balcony

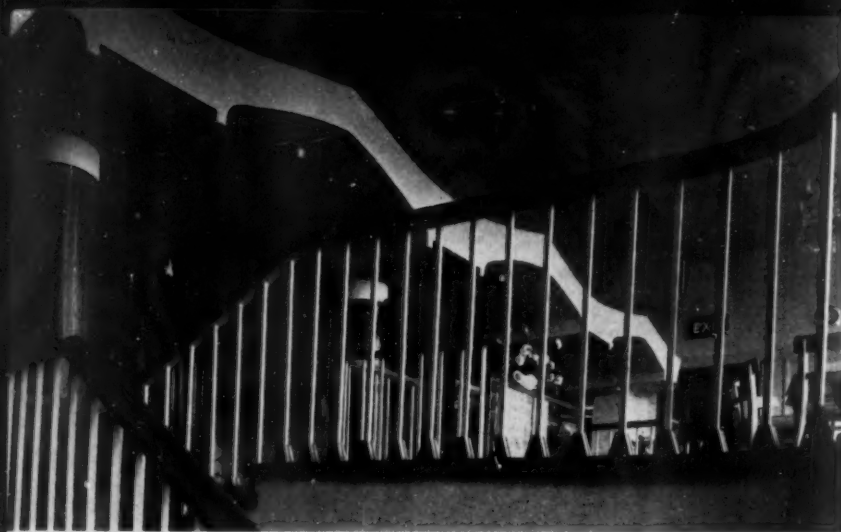
are treated as "fauteuil" seats.

The proscenium curtain hangs in deep folds, parting side ways, thus avoiding the "frilly" effect of the usual cinema "tabs".

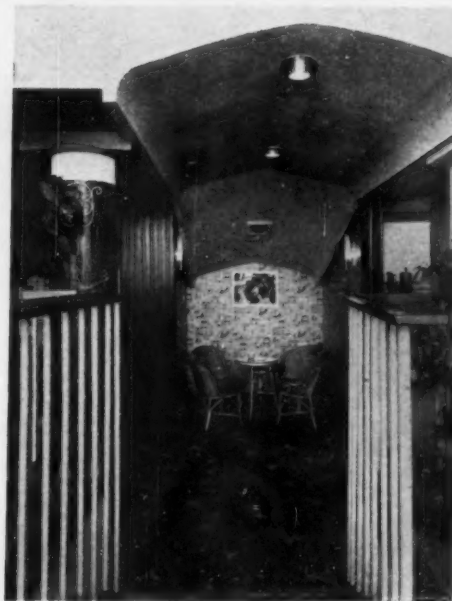
Screen and Projection

This was evolved in close co-operation between the architect and British Thomson-Houston, Rugby. The screen has been designed to give the appearance of "floating" in a deep and wide surround. This effect is further enhanced by an arrangement of lighting battens behind the coved frame of the screen itself. The screen which is an all purpose one can be adapted to standard size films in a new way, only recently developed by B.T.-H. Instead of the black mask usually employed for reducing the picture size a system has been devised to project the masking on in colour, changing with the colour of the film. This reduces contrast and resulting glare and eyestrain. Model experiments carried out with the architect by B.T.-H. showed that the deep surround has to be white to give the most suitable gradation of tone from the picture to the surround and so a white rough cast was resorted to and the general toning down from the actual picture to the surround and eventually to the auditorium itself is optically very successful, brings out details of colour and form better than any other way and eases strain.

Continued on p. 557

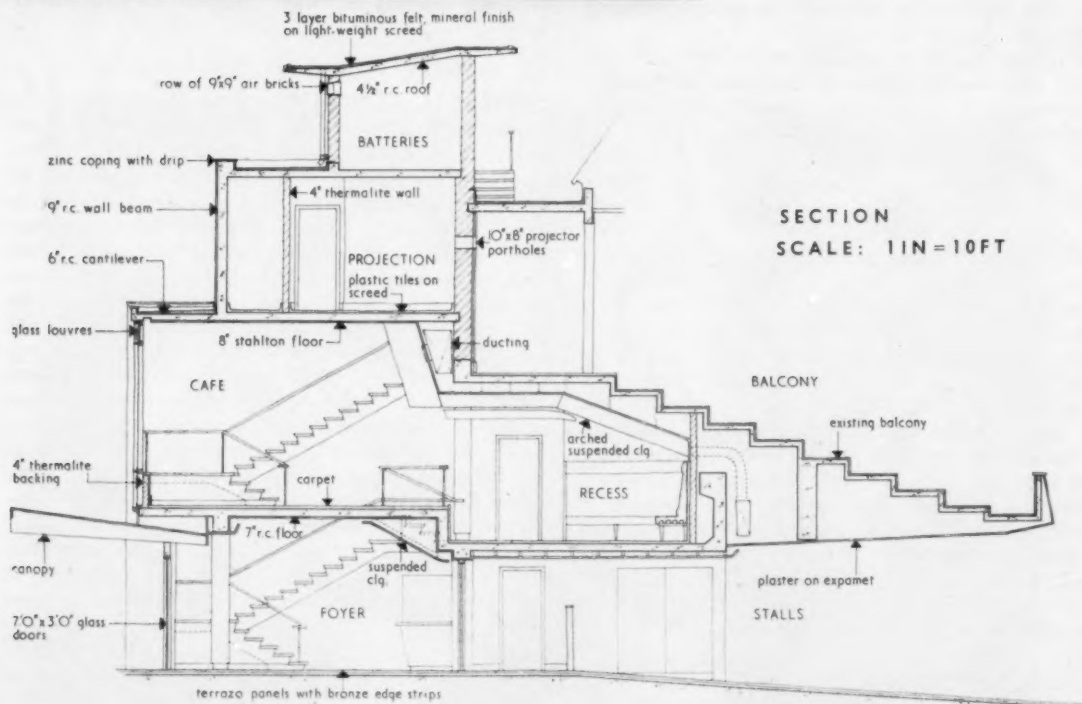


◀ The vaulted ceilings over the alcoves are mushroom grey colour on plastered concrete.



An Alcove ▲

◀ The cafe floor is waved oak in a diamond pattern outlined in "Panga Panga" strips



SECTION
SCALE: 1IN = 10FT

Birmingham Cinema

The Cafe

The lower level is carpeted in the same pattern as the auditorium while the upper level is finished in a genuine parquet floor laid in a large diamond pattern in waxed oak, each diamond outlined in a narrow strip of "Panga-Panga". The floor is laid on a ply wood base which in turn is glued and pinned to a t. & g. softwood blinding floor, fixed to battens in the concrete. The long wall at the rear end facing the window wall is finished in flush V-jointed hardwood panelling, polished a warm mahogany colour. The end wall is decorated by a "mural" in four timber frames, depicting in outline four well known film stars; colours: white on black, dark red, grey or blue. The base is formed by a luminous flower trough. The alcoves are papered in different gay papers obtained from Messrs. Cole's and each rear wall contains a luminated show case with pottery inside, mostly representing cats, for which the clients have a special weakness.

The main illumination is by traditional chandeliers of partly amber coloured glass which the clients contributed and which marry in quite happily with the "contemporary" treatment of the rest. The ceiling is lemon yellow and the slanting part of it over the ends of the alcoves and which contains the main warm air duct for the cafe, is painted chocolate brown, on lining paper.

The columns themselves are papered in a green paper with thin vertically "Wriggling" lines, also from Cole's, based on a "Frank Design".

The vaulted ceilings over the alcoves are "mushroom" grey and appear "turned up" to form the wavy lighting troughs already mentioned. The tables in the cafe were designed by the architect.

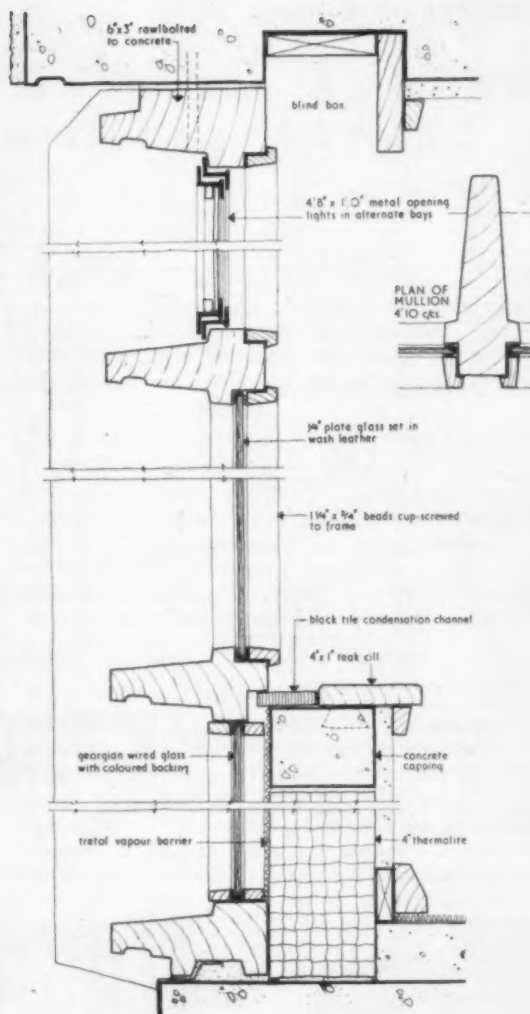
The staircase is concrete with the edges of the treads outlined in dark wood, each tread lined with a strip of carpet. The risers are protected by a shallow "skirting". Risers and sides of stairs are in white "stone" paint and undersides pearl grey. The whole curved rear wall of the stairs is finished in a deep blue "stone" paint.

The Foyer

The staircase wall continues down into the foyer in deep blue, the remainder is finished in white "stone" paint with the ceiling in pearl grey. The slanting suspended ceiling over the cash desk hides the spandrels of the short flights of stairs at cafe level. The columns, one of which is "enveloped" by the sales counter, are finished in bronze. The floor is wood blocks laid in an 18in basket pattern of two different woods, namely "Panga-Panga" and "M'fabda". The cash desk is in teak stained dark and sycamore. The doors are finished in mahogany dark chocolate in tone with 6in diameter mushroom shaped knob handles, satin silver.

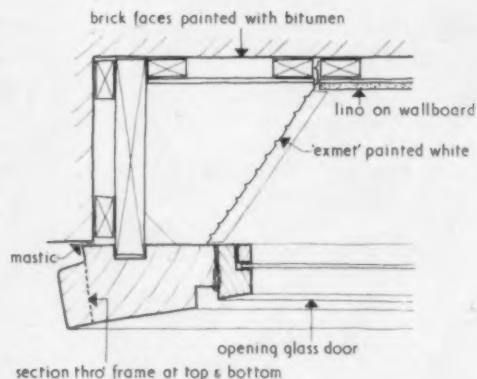
Lavatories

These are tiled in colour with black terrazzo partitions. The ladies' toilet room contains a tiled powder table.



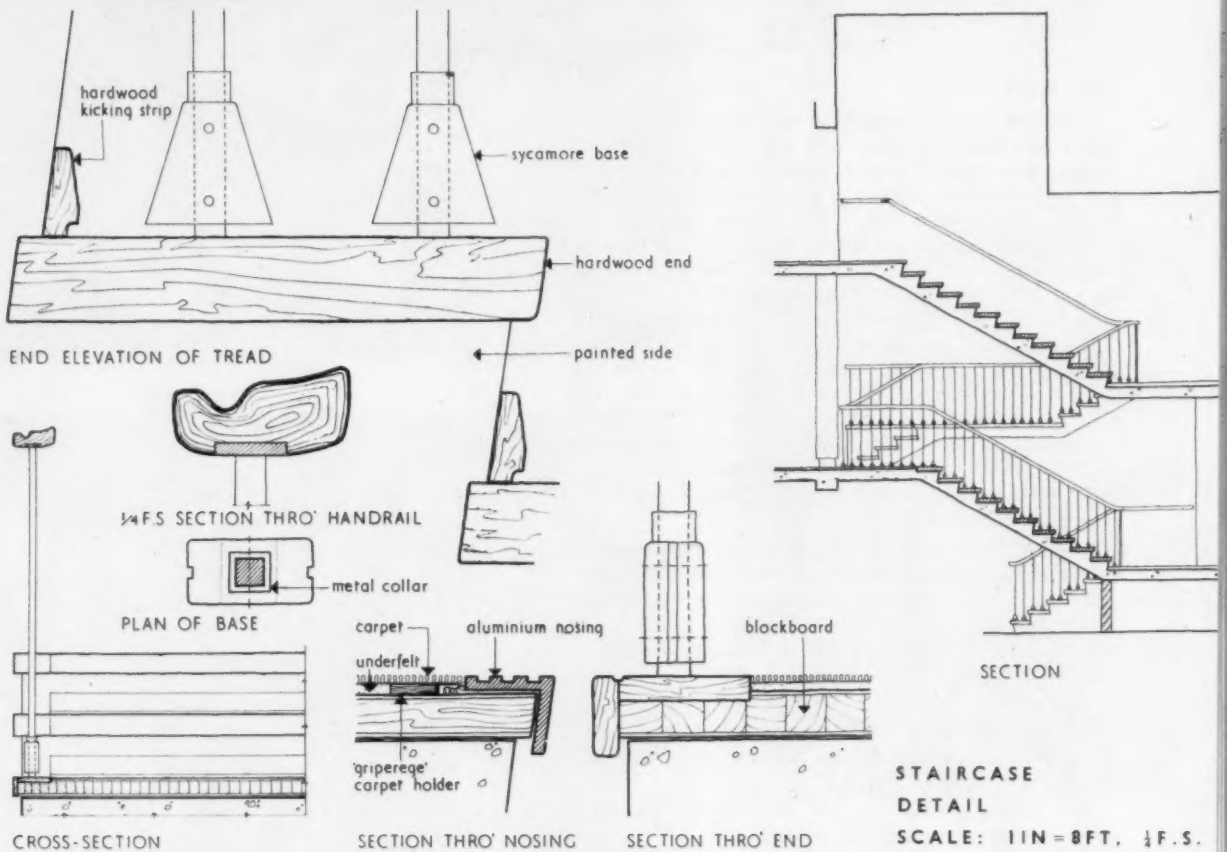
CAFE WINDOW

SCALE: $\frac{1}{12}$ F.S.



SURROUND DETAIL

SCALE: $\frac{1}{4}$ F.S.

Birmingham Cinema

POINTS FROM PAPERS

ARCHITECTURE, HUMANISM, AND THE LOCAL COMMUNITY

Extracts from the paper read at the R.I.B.A. on 14th May by
 HENRY MORRIS, (C.B.E. M.A. (Oxon.) M.A. (Cantab) (Hons. A.)

THE age of industrialism and democracy has brought to an end most of the great cultural traditions of Europe, and not least that of architecture. In the contemporary world in which the majority are half-educated and not many even a quarter educated, and in which large fortunes and enormous power can be obtained by exploiting ignorance and appetite there is a vast cultural breakdown which, as we approach universal literacy, will stretch from America to Europe and from Europe to the East. One effect of the breakdown to which I refer is to be seen in the disintegration of the visual environment in highly civilised countries in Europe with a long tradition of humanised landscape occupied by villages and towns of architectural character, sometimes of moving beauty. The march of squalor proceeds from the Eastern hemisphere to Africa and then to the West. In its grimmest and most cruel form it is to be found in industrialised countries, for instance in large parts of the United States.

The kind of visual environment which upholds and dignifies the episode of man is being destroyed in old countries like our own, and it is simply not being created in countries all over the world which are now being, or are about to be, industrialised. I do not stop to diagnose the reasons for this collapse and failure or discuss what the remedies may be, I hasten to point out that we are about to be confronted with another disabling deprivation in our surroundings. Let me first point out the extent to which the quantitative, the impersonal, the non-human is becoming almost wholly the condition of existence in a society whose main instrument is applied science and technology. This impersonal mechanical element is invading and dominating all spheres, the economic, the political and the social. I need only mention nuclear science, automation, electronics, the monolithic state, giant industrial combines, speed, noise and the enormous proliferation of administration. (Up to 1916 the British Cabinet which was engaged in governing not only these islands but the Empire, met regularly without an agenda and kept no minutes of its proceedings.) We are only at the beginning of this revolution in the life of man. Before long the whole of humanity on this planet will have passed from an agricultural and hand-craft civilisation to a highly industrialised technological civilisation.

I mean by architecture, the ordering of the whole of our visual environment, and in architecture thus conceived I include not only the architect, the engineer and the craftsman, but also the sculptor, the painter and the landscapist. Now one of the main functions of architecture in high civilisation has been to signify man's physical environment, either in terms of feeling through awe and the numinous (the sense of what is hallowed and sacred) or in terms of the human body and its manifold physical states—all of these being humane values of great importance and efficiency in the psychological, emotional and

physical life of man. As Geoffrey Scott has said, we transcribe ourselves into terms of architecture: also, we transcribe architecture into terms of ourselves. The whole of architecture is in fact, unconsciously invested by us with human movement and human moods. This is the humanism of architecture.

I am referring to all that in well-building forms part of the quality and condition of delight.

What all this has meant in the life of man by giving it meaning and the wonder of an ubiquitous humane incarnation is not to be expressed, except perhaps in an utterance which itself would be a work of art. I trench here on the supreme importance of architecture in the life of man because of its public character. It is our subtlest form of compulsory aesthetic education.

Modern Architecture

I stand before you this evening as one convinced intellectually, technically and aesthetically not only of the inevitability of new forms of modern architecture, but eager and enthusiastic to embrace this chance of a new beginning. In this case the inevitable must not merely be accepted; it must be embraced. Such realism has always been a condition of an original flowering of art forms. The conjugation of the forms of architecture that have been traditional for some three thousand years has become feeble and dies in the presence of the new possibilities of structure and material now available to us. The functional and stylistic revolution of architecture has begun and will become universal. I will refer later to the changes in the social scene which have relevance for architecture. What I would like now to say, as a layman, is that modern architecture has made great advances in structural originality and in interior functional efficiency and aesthetic efficacy. It has not yet fully developed that external function of delight which the architecture of Europe has performed and which has to be replaced. I am thinking not only of the serving of humane values which Greek and Roman Renaissance architecture and the classically informed architecture of England has performed down to Regency times. I am thinking also of the spatial arrangements that constitute the precinct in its various geometrical forms which have given delight and security to man's daily life.

Not only has modern architecture, I suggest, not yet begun to perform what I should call its external service to the local community. One gets the impression that architects are not sufficiently aware of this service as an imperative and a necessity. I have mentioned those states of psychological and physical pleasure which in the past it has been the external function of architecture to evoke. Modern architects have to search and experiment to find out how far the structural possibilities of modern materials are capable of performing externally this humane, sen-

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suous, and aesthetic function. It is difficult for a layman to see how modern architecture may throw up decorative themes which are but discarded functional devices. Time alone, I suppose, can show that. What is crystal clear is that the expression of humane values in architecture depend more than ever on the architect continuing to be an artist as well as an engineer co-operating with other artists—painters, sculptors, designers of tapestry, and craftsmen and the creation of these conditions of delight can be quite separate from structural forms and additional to such structural forms as may be found to have aesthetic and humane value.

Geometrical Forms

I would venture to urge that modern architecture should not hesitate to use the geometrical forms that create the local precinct, the square, the three-sided court, the circle, the crescent, and that in doing so it will not involve itself in the futility of imitation. These forms have a continuing social use and convenience as well as aesthetic influence. There may be, awaiting discovery, other forms of capturing and organising space for the pleasure of man.

It is obvious too, that the elaboration of external texture both as to form and colour will continue to be a method of giving humane values to architecture. I have spoken of the condition of delight in well-building. I hasten to note, with emphasis, that it is still within the power of architects to invest modern structures, both within and without, with the sense of awe and the numinous which is the essential character of religious architecture. I believe that Mr. Basil Spence will create a cathedral at Coventry which internally and externally will be invested with these qualities of the awesome and of the numinous as intense and moving as those to be found in the greatest of existing churches.

Finally, in this world of increasing impersonality and sameness we must hold before our minds and imaginations the humane value in architecture of the unique work of art, the unique work of sculpture, whether fixed or free, the unique mural decoration, the unique fixed painting or tapestry, the aesthetic use of water in the unique fountain.

I sum up in a sentence the main contention I have tried to make. It is profound necessity for civilisation that modern architecture should discharge its external function of ennobling and signifying our environment and to do so in terms of humanist values.

I pass on now to another aspect of the problem of creating and preserving in our environment the individual, the idiosyncratic, the idiomatic, the humane, in a world in which the anonymous and the impersonal increasingly envelop us. I am thinking of something physical, the locality, and then of something social, the local community. I discuss the latter first.

Up to almost half way through the 19th century only the governing minorities of societies were literate. Now not only Europe and North America but the whole planet is becoming literate. It is safe to assume that by the end of the 20th century everyone, except the mentally defective, will be able to read and write. At the same time, science and technology are being applied to all the processes of life. It is in this circumstance that our civilisation, both of

the masses and of the minorities, differs from all previous civilisations. Applied science will bring food, clothing, health and conveniences to the undeveloped countries, as it has brought those benefits to existing industrialised countries. But technology and industrialism not only revolutionise agriculture—they kill the culture and the magical art which in rural societies sprang up side by side with agriculture. Where the victory of technology is complete, as in North America, the numinous is never created, and the numinous is a major condition of creative art in the experience of our race so far. In old countries like China and India the conditions of the numinous are being destroyed on a rapid and enormous scale; in countries like England, France and Italy the numinous is evaporating. Urban man whether he lives in garden cities or the industrial slums loses natural religion, his songs, music and legends, and the ritual dance.

What happens to industrialised man? He kills leisure time with amusement and, be it noted, amusement mainly passive and largely commercialised—professional sport, the cinema, the radio, television, football pools, gambling, newspaper reading, etc.—which excites and distracts but seldom or never recreates or gives instinctive satisfaction or happiness. "Small wonder that Monsieur Bergson has called ours an 'aphrodisiac civilisation'." But the epithet it not quite just. It is not that we worship Aphrodite. If we did, we should fear these make-believes as a too probable cause of her wrath. An aphrodisiac is taken with a view to action: photographs of bathing girls are taken as a substitute for it. The truth may rather be that these things reveal a society in which sexual passion has so far decayed as to have become no longer a god, as for the Greeks, or a devil, as for the early Christians, but a toy: a society where the instinctive desire to propagate has been weakened by a sense that life, as we have made it, is not worth living, and where our deepest wish is to have no posterity." (Collingwood: *The Principles of Art*.)

Is it possible in any way to counter this habit of passive amusement which envelops men everywhere, and to give him the opportunity for activity of body and mind, and active mental, sensuous and emotional experience?

Culture and Education

Our species, in solving the problem of poverty and overwork, is in fact moving forward to a more difficult and perilous stage in its history. For what is called social progress, we have now learned, is not a movement towards a static perfection; it is the exchanging of one set of solved problems for a new and more significant set of problems making greater demands on human originality and energy. The solution of the economic problem awaits no longer so much on knowledge as on an effort of political will and administration. Universal comfort, with wealth and repletion and with large margins of free time, is the next great problem of *homo sapiens*. The human house will indeed be swept and garnished for a fresh fate. Words cannot do justice to the urgency and the wisdom of thinking out now new institutions to enable communities to face this new situation. To do this we must arm ourselves with two conceptions which are, in fact, complementary: First, adult education is the major part of education. The centre of gravity in the public system of education should reside in that part which provides for youth and maturity. Secondly, the fundamental principle and the final object

of all future community planning everywhere, whether urban or rural, should be cultural.

I take the second proposition first. Planning, even at its best, is universally conceived of in terms mainly of the reorganisation of the economic and instrumental services of community life—industry, transport, housing, sanitation, water, light and amenities. Planning must provide, not only for the economic and instrumental order, but also for the cultural and social life of the community conceived in its widest sense. Apart from the programme of the schools up to the age of eighteen, those cultural objects are religion, the practise of mental and physical health, adult education, science and the humanities, social and physical recreation in community centres, and the consumption and practice of all the arts by adults whether in groups or individually. The most fruitful and far-reaching development of education in our generation will come as a result of conceiving of it not only as a matter of psychology but also as the core of social and political philosophy; and of regarding education as the fundamental principle, and educational institutions as the essential material of concrete social organisation. The organisation of communities around their educational institutions is capable of universal application in any society and at any stage of culture. It is also the ultimate form of social organisation. It is the only method of escape from the impasse of modern society, in which some unity of communal life is necessary, but in which, by the operation of freedom of thought, a multiplicity of autonomous associations has grown up side by side with the State and replaced a single dominant view of life. A pluralistic society has taken the place of a monistic society, and architecture, both in the invisible hierarchy of values, and in the visual order of our environment, is difficult or impossible to achieve. Some method for the integration of the life of the community with vital relevance to modern conditions is the prime social necessity of our age. The unity of social and spiritual life with its institutional and civic expression in architecture and organisation which was characteristic of the mediaeval town and the parish church and manor of the countryside has gone for ever. But the effect, in modern times, of pluralism of associations and beliefs has been one of social disintegration, less evident in the village than in the contemporary town with its social fissiparousness and resultant architectural chaos. Since the breakdown of the mediaeval civilisation we have, so far as the social expression of values in communal living is concerned, been living on credit, consisting of the legacies of the forms of the Middle Ages and of the brief and brilliant, but morally impossible, 18th century. Today we have to find a principle of integration which will allow unity of communal life and architectural expression and at the same time give free development to that pluralism of associations on which growth and freedom depend. In mediaeval Europe a common organisation for communal living was made possible by a system of common values and beliefs. In our time that element of unity in the life of society which is essential will be attained by the organisation of communities around their educational and cultural institutions. It is by some such synthesis that modern communities can again become significantly organic, that the decay of civic life and architecture can be arrested, and the planning of modern towns on lines of imaginative significance surpassing the achievements of the past, be made possible.

The development, therefore, everywhere and for everybody, of a fully articulated system of Adult Education is the most important of all the tasks that lie before us. Such a development of Adult Education would include activities at a number of levels, intellectual, aesthetic, and recreative, with extensive provision for corporate life. The effect would be that the centre of gravity in the education of a local community would not be in the school, as it is now, but in that part which provides for youth and maturity. Every local community would become an educational society.

This prompts me to dwell with eagerness on certain implications which I believe have a profound bearing on the community pattern in this or any country. The locality or neighbourhood in which we spend our daily lives and the local community to which we belong form the cell of society. It is of supreme importance that the neighbourhood should be full of life and vitality and have significance and meaning for all those who live in it. But vastly increased transport and opportunities for amusement have weakened the local group and its personal and corporate activities. This has happened as much in the cities as elsewhere. How is this vitality to be realised—this activity of body and mind, of emotion and feeling, both personally and in groups, that is the precious essence and core of culture at any level? It comes about when teacher and student, student and student, young and old meet face to face in lecture and debate, in song and dance; or in orchestras, choirs and plays. I have seen groups absorbed in workshops, laboratories, studios, libraries. And there are the virtues of eating and drinking together and conversation in the common room, and all that happens in games and on the playing fields and running track. A community that has these things enjoys the deepest satisfactions, which nothing can replace. It has an antidote to one of the greatest dangers of modern life, the pursuit of all kinds of passive mass amusements which kill time rather than recreate.

Adult education and recreation of the kind I have described are as necessary to everybody as food and air. So are the *active* practice and enjoyment of all the arts. I reiterate the belief I formed 34 years ago which has become stronger than ever: it is that the centre of gravity in education and the culture it transmits should be in that part that provides for youth and maturity. How is this to be brought about in the countryside and the cities? One main means to this end is to group our local communities round their colleges and secondary schools. It is plain common sense and wisdom to do this in the new housing estates, the new towns, and the expanded towns which are now being talked about. And it should be done not merely to avoid frustration, loneliness, and boredom, but with the positive intention of creating civilised communities able to live the good life. These colleges and secondary schools are an entirely new thing in our history. They cost vast sums. For instance, in a new town of 60,000 the secondary schools alone cost £1,500,000. In no other country in the world are such magnificent schools now being built. Let us, as the Minister of Education suggests, attach community wings to such colleges and schools so that, with their wealth of facilities, their accommodation and equipment, they can become part of the community pattern and centres of community life.

Such a pattern is valid for the countryside and city in any country at whatever level of culture. All over the

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world, and especially in Africa and the East, science and technology are being used to abolish poverty, to bring about better food supplies and housing, health and a longer life, and thus to leave behind the life that is nasty, brutish, and short. This is one of the biggest changes taking place in the world today. Nothing can stop it. As Robert Bridges has said, "They have seen the electric light in the West" (electricity symbolising the new world of technical invention) as we in the West once saw the star of Christianity in the East. But the application of science to material welfare should take place with a constant regard for human values. I believe that one of the surest ways of doing this, and one ready to hand, is to group communities physically round their cultural institutions so that these can form part of daily life and habit. We must all earn our living and proper training for that is a necessity; but it is also a desperate necessity, and not a luxury, that the satisfaction of the cultural and recreative needs of the local community should be a major aim in town and country everywhere.

Institutions

I have dealt with the need of men and women in the Local Community everywhere, for institutions to which they can repair to carry on that active personal culture and creative life of body, mind and feeling, which is life at its best and most real.

I pass to the physical aspect of the locality. The creation of the locality with its precinctual character is a major task of architecture, but it has been completely forgotten in the speculative building and in the housing estates of the past half-century. Even today, the precinctual locality is not provided for in the expansion of existing towns by local authorities. In the conglomeration of long meaningless streets with no social, religious or cultural significance, architecture becomes non-existent. The bus conductor at the terminus of a Birmingham housing estate cries out *Sahara*, and it is indeed in such social deserts that one feels the full impact of the exclamation of the poet, "Ah, what a dusty answer gets the soul . . ." I can make my view more explicit by referring to what has been happening in the New Towns.

We can no longer achieve in them the grandeur and impressiveness of domestic architecture such as characterises for instance Bath, Regent's Park and Bloomsbury. If we are to give our new towns and the housing estates architectural significance and a civic sense we are bound to use our educational and cultural buildings as focal points. This involves the imaginative location of colleges, schools, libraries, community centres, art galleries. I am glad to say that in most of the new towns the college of adult education has been placed in the town centre so that it is given a cultural as well as an administrative and commercial character. There may be a theatre and a cinema, a hotel, cafes, restaurants and the open market. Thus the town's central square by day and night may be alive like St. Mark's Square in Venice. This blend of daily life and civic administration with the main cultural buildings is irresistible as a conception and in practice, and continues an ancient tradition of European civilisation.

Likewise the neighbourhood centres, each serving a portion of the town, are spacious precincts for shopping, with an inn, a community centre or hall, the branch library

with the large secondary school adjacent or near at hand. Thus, in the new towns, cultural buildings, which are the largest public buildings, have been deliberately located to create an atmosphere of civic significance. In one new town, its nine large secondary schools have been located in groups of three, on three large sites or campuses, lying between the centre and the circumference of the town. Each campus and its buildings, gardens and playing fields is a cultural focal point, lending dignity to the surrounding streets and housing. Even infant and junior schools can be and have been sited so that they are grouped significantly with the surrounding houses.

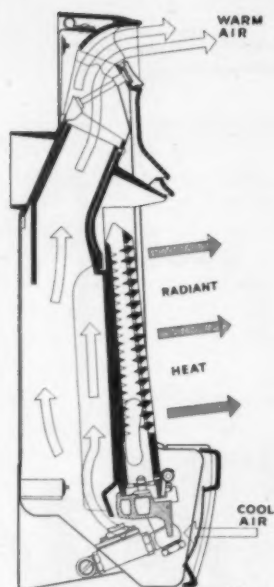
The majority of our new educational buildings are being built in modern and not traditional terms. It is impossible to overstate the need that such educational buildings should, through their external form, composition and texture, contribute significance to their surroundings. To the extent to which a school building does not serve these humane values it is to that extent an architectural and aesthetic failure in an external world that is becoming increasingly impersonal and mechanised. I should like to observe that we may fail to create this humane function in modern architecture if we are too much influenced or dominated by considerations of speed. It is the techniques of rapid building that have done as much as anything to lead architects to sacrifice the humane external function of school buildings. In a decade or two the bad effects of an unnecessary and doctrinaire worship of speed in school buildings will become painfully obvious.

It is with such a policy, it seems to me, that town and country planning and architecture can enable a town or a group of villages to provide not only an environment, but a way of life, in which the personal, the intimate, the humane are given full expression, and where architecture as an art can make its fullest impact on young and old daily and throughout life.

Here let me state a belief which arises out of a working life spent in public education, from the beginning of which I was seized with the vital importance of architecture. That belief is that architecture, as the great public art present to us all during the whole of our waking lives, is part of the essence of education. Architecture, the understanding and particularly the appreciation of it, should occupy as important a part in education at school and in adult life as our English mother tongue and literature.

Let me try to sum up in a sentence or two the views that I have expounded.

We are living in a world dominated by applied science and technology. The necessity for the artist, who sustains humane and personal values, is greater than ever. Certain creations of the artist, such as music, literature and painting, we are able to obtain and enjoy in our private capacities. But architecture as the great public art to whose influence all are subject, can only be provided by Society, and be it noted at the hands of the architect who is an artist. Modern architecture, which is the result of new structural principles and materials with a mechanical logic of their own, is confronted with an imperative which it must obey. This is, that, in addition to its practical utilitarian functions, modern architecture must nourish humanist values especially in its external service of expressing the significance of man's activities, of giving nobility to his environment, and ministering to his delight and appetite for beauty. It is not to be contemplated that modern architecture will fail to do this.



Domestic Gas Appliances

This article is concerned with domestic gas appliances. It deals chiefly with the following items: Water heaters, space heaters, cookers, wash boilers and washing machines, and clothes airing and drying cabinets. The next article in the series will cover concreting machinery

GAS IN THE HOME

GAS is supplied to the majority of buildings in this country and in appreciation of the factual considerations and the variety of appliances available must form an important facet of building technology today.

The Egerton Report recommends a minimum background temperature throughout the house of 45-50 degrees F., with means of "topping up" the living rooms and at least one bedroom to an equivalent temperature of 62-70 degrees F. The hot water installation should be capable of supplying 250 gallons of water at 140 degrees F., weekly.

The report also recommends minimum standards of ventilation; 600 cu ft per hour per person for living rooms and bedrooms and 1,000 cu ft per hour for the kitchen. The Gas Industry is a pioneer in fuel services and it must be stressed at the outset of this article that its experts are available to give free specialist advice.

Service and installation pipes

The gas service pipe meter and internal installations are the first sections to be considered. From the service pipe onwards, the size and layout of pipes will depend upon the type of appliances to be installed.

It is laid down in the British Standard Code of Practice 331.101 (1947) "Gas Service Pipes" that no service pipe of less than one inch nominal diameter should be installed. Possible extensions should be borne in mind, the installation of which may involve serious disturbance to existing work and it is always better to err on the large side.

Service pipes are usually laid in a pitch-filled trough or wrapped with bitumastic impregnated material. Any pipe passing through a wall or floor should be sur-

rounded by a sleeve of internal diameter one inch greater than the external diameter of the pipe, and the space between it and the pipe should be filled in with bituminous or other suitable material through the length of the sleeve; the space between the sleeve and the wall should be filled in solid with cement mortar or concrete. In the administration area of the L.C.C., gas installation work is controlled by the London Gas Undertakings (Regulations) Act, 1939. The length of the service should always be kept to a minimum, particularly under solid floors.

The meter, its connections and control should be contained in an easily accessible compartment as near the building line as possible. It must be in a situation which is dry and of reasonably even normal temperature.

Ventilation and flues

In the past flues have not always been given sufficient attention, one of the reasons being the cost of conventional brick stacks, but with the advent of pre-cast flues which can be built into the thickness of brickwork, the problem of cost does not now bear so much weight.

Pre-cast flues are particularly useful for the venting of gas fires and for general ventilation. The development of round and oval sections as well as the pre-cast concrete gas fire flue blocks provide a wide choice of economical flues.

Recommended minimum rates of ventilation for rooms in dwellings are given in the British Standard Code of Functional Requirements "Ventilation of Buildings", chapter 1 (c). Air inlets in the form of suitably disposed wall or window openings to the ex-

Above: Sectional view of Gasmiser room heater by Cannon (G.A.) Ltd.

Domestic Gas Appliances

ternal air should be provided, so situated in relation to outlets that draughts are avoided and the air of the room is uniformly changed.

Situation of flue terminals

The correct positioning of the flue terminal is of the utmost importance. It should be situated where the wind can blow freely across it, to assist the extraction of flue products.

Condensation in flues occurs if the flue gases in contact with the surface of the flue are cooled below the dew point before discharge. The adequate dilution of the products of combustion with air, and the avoidance of excessive cooling in the flue by proper siting help to prevent this. Normally, only water heater and central heating boiler flues present a condensation problem as these appliances operate at such high thermal efficiencies that the flue gases have only a small heat content. The provision of extra air inlets to the flue and an ample air supply to the boilerhouse is helpful. Where condensation is likely to occur the use of internally treated flue materials is recommended.

Space heating

It has been found that if heating is by convection, the minimum air temperature for comfort should be 60-65 degrees F., but if heating is mainly by radiation, the air temperature should be 52-57 degrees F.

Recently on the market is a combined gas and coke fire. At times when the solid fuel fire is not required, the integral radiant gas fire can be used to give convenient, quick and comfortable warmth. All solid-fuel fires of Gas Council approved design can be ignited by means of a built-in gas burner. For summer hot water, a gas attachment is available which stands in the fuel bed, to heat a back boiler.

For long period space heating by gas, the flued radiant-convector fire is 25 per cent. more efficient than the radiant fire. It is freestanding in a hearth and is of the conventional radiant element type. It burns non-aerated (neat) gas, and is entirely silent in operation. It is in addition provided with a form of heat exchanger behind the radiants. Air is drawn in at the base of the fire, passes through the heat exchanger behind the radiants and is circulated through the room from an outlet at the top or sides.

The balanced-flue convector heater can often be used as an alternative to central heating. The products of combustion are freely ventilated to the outside air. The air required for combustion is also drawn from the outside, so that the heating unit is completely sealed from the room. No flue as such is required, but these heaters must always be fitted to an outside wall. A heater burning even six cubic feet of gas per hour will give 1,000 cubic feet of warmed air per hour.



No. 325 gas heated towel rail by John Harper & Co. Ltd.

With flueless convector heaters, the thermal efficiency is high, and they maintain a fairly constant air temperature, but owing to the lack of any appreciable radiant heat, they are not particularly invigorating.

Normally, gas fires in bedrooms are required for short periods only. In this case the ordinary radiant fire is suitable as it is unnecessary to provide for other than quick heating and a reasonable zone of comfort.

Central heating

Conventional gas fired central heating systems whilst basically less flexible than individual appliance installations, provide a convenient method of giving either a completely automatic central heating service throughout the house, or background heating topped up by individual appliances during the occupation of rooms. The basic cost of the fuel for gas central heating is normally in excess of solid fuel or oil, but the advantages of flexibility, cleanliness, labour saving, compactness and completely automatic control, combined with the elimination of any fuel storage problems compensate to such an extent that there has been a steady increase in the use of gas for central heating since the war.

Water heating

Until recently, the hot water service provided by gas was mainly at individual points, or as an auxiliary to

solid fuel in the summer when space heating was not required. Research work has, however, shown that a full all-the-year-round hot water service by gas can be provided at a reasonably capital and economic running cost.

According to the Egerton Report a satisfactory hot water installation should be capable of supplying at least 250 gallons of water a week at 140 degrees F. The Gas Industry's assumption of 150 gallons per week as a more realistic level, however, was confirmed by the Abbots Langley Building Research Station field trials. This service can be provided by instantaneous single point appliances for $2\frac{1}{2}$ therms per week, or by multi-point instantaneous or storage appliances for three therms per week.

One advantage of gas water heaters is their ability to provide economically not only a satisfactory minimum requirement, but also any higher standard of service at the demand of the user. The selection of the most appropriate type is an important factor in ensuring an adequate supply of hot water at low cost.

The instantaneous gas water heater is available as a single or multi-point appliance. The smaller size is suitable for use at the sink or wash basin; the larger will give a complete hot water service to a house.

The description "instantaneous" indicates the chief advantage of this type of heater. Hot water is available instantly and can be drawn continuously as long as the machine is operated, although the rate of flow and temperature rise of the water are limited. Heaters of this type are particularly useful for those who require hot water at infrequent intervals. Subject to the regulations of the local water undertaking, these heaters can, if necessary, be fitted directly to the main, but owing to

fluctuations in water pressures, it is preferable to arrange for the cold water feed to the machine to be taken from a storage tank.

Storage heaters

Storage heaters are obtainable either in self-contained form for large or small storage or as circulating types for addition to an existing hot water system.

Self-contained storage heaters are those in which the heating unit and the storage vessel are integral parts of the one appliance. With this system the hot water is maintained at the desired temperature and a full flow of hot water can be obtained within the limits of the capacity of the associated storage tank. The cylinders are available in a range of sizes from two gallons upwards; one type may be fitted under a sink draining board.

Circulating types are similar in operation to the self-contained types, the only difference being that the storage vessel is separate from the heating unit of the circulator and in existing property, the hot tank already installed is often used. When only a small quantity of water is required to be heated, a second return pipe to the storage vessel with a two-way valve in the primary return to the circulator, can be fitted.

Cooking

Little can be said about facilities for cooking. It is estimated, however, that some 70 per cent. of households use gas for cooking. An estimate of gas consumption for a gas cooker in the average household of about three persons in some 110 therms, but for cooking alone it would be between 75-80 therms. The difference is because the gas cooker is often used for purposes other than cooking, such as water heating for clothes washing and even bathing, while in the winter it is sometimes used for heating the kitchen.

Home laundry

There is an increasing tendency for laundry, to be carried out at home, and provision should be made for the installation of a washing machine and drying cabinet or built-in drying unit.

As some gas washing machines have electrically operated agitators and wringers, provision should be made for a gas point and an electric outlet.

It should be borne in mind, however, that up to 9lbs of water is contained in an average family's household wash of 18lbs dry weight, and it is desirable to ventilate a drying cabinet to outside air. There are available a number of independent drying cupboard units for installation during or after construction, which should be ventilated. Short of this, the room must be adequately ventilated.

Refrigeration

Gas refrigerators are generally of $1\frac{1}{2}$ to 3 cu ft capacity.

No. 222 XS gas heated food container sterilizer by Barralets Engineering Co. Ltd.



FIRMS MENTIONED IN THE ARTICLE

ASCOT GAS WATER HEATERS LTD.
North Circular Road, Neasden, London, N.W.10. Willesden 1234.

AUTOCONTROL BOILERS LTD.
167, Temple Chambers, Temple Avenue, London, E.C.4.
Fleet Street 7821

BARRALETTS ENGINEERING CO. LTD.
Lee Church Street, London, S.E.13. Lee Green 3391

F. H. BIDDLE LTD.
16, Upper Grosvenor Street, London, W.1. Hyde Park 0532/9

F. A. BORCHARDT LTD.
3, Chesterfield Road, London, W.4. Chiswick 4905.

BRATT COLBRAN LTD.
10, Mortimer Street, London, W.1. Museum 4911 and 9311

CANNON (GA) LTD.
Deepfields, Bilston, Staffs. Bilston 41241/5

CLIFFORD PRODUCTS LTD.
Imperial Works, Friar Street, Wednesbury, Staffs. Wednesbury 0784/5

W. H. DEAN & SON LTD.
Victoria Works, Burnley, (P.O. Box No. 2). Burnley 7524

THOMAS DE LA RUE & CO. LTD.
Imperial House, 84/86 Regent Street, London, W.1. Regent 2901

EASICLENE PORCELAIN-ENAMEL (1938) LTD.
Darlaston, South Staffs. Darlaston 130

ECONOMIC GAS BOILER CO. LTD.
Gas Appliance Works, Junction Mills, Burnley. Burnley 3305

ELECTROLUX LTD.
153-5 Regent Street, London, W.1. Regent 7252/5.

EWART & SON LTD.
255, North Circular Road, Neasden, London, N.W.10.
Wilkesden 1234

FALK STADELMANN & CO. LTD.
Veritas House, 91 Farringdon Road, London, E.C.1. Holborn 7654

SIDNEY FLAVEL & CO. LTD.
Eagle Foundry, Leamington Spa. Leamington 100

FORTH & CLYDE & SUNNYSIDE IRON CO'S LTD.
Falkirk, Scotland. Falkirk 502

GENERAL GAS APPLIANCES LTD.
P.O. Box No. 6, Corporation Road, Audenshaw, Manchester.
Denton 2474/7

J. GLOVER & SONS LTD.
Groton Road, Earlsfield, London, S.W.18. Battersea 6511

JOHN HARPER & CO. LTD.
Albion Works, Willenhall, Staffs. Willenhall 124

HOTSPRINGS LTD.
34 Imperial Square, Cheltenham Spa. Cheltenham 54968 & 3461

G. L. HOWARTH & CO. LTD.
P.O. Box 39, Nelson Square, Burnley. Burnley 6344/5

HURSEAL LTD.
229 Regent Street, London, W.1. Regent 1051

IDEAL BOILERS & RADIATORS LTD.
Ideal House, Great Marlborough Street, London, W.1. Gerrard 8686

FREDERICK KAY (ENGINEERING) LTD.
Nashleigh Works, Chesham, Bucks. Chesham 920/1

LLOYD METCALFE DESIGNS LTD.
Gordon Street, Leamington Spa. Leamington 2682

R. & A. MAIN LTD.
48 Grosvenor Gardens, London, S.W.1. Sloane 6241

METERS LTD.
51 King Street, Manchester 2. Blackfriars 0387

MORLEY PRODUCTS (PADIHAM) LTD.
Victoria Works, Padiham, Lancs. Padiham 981

PARKINSON STOVE CO. LTD.
Stechford, Birmingham 33. Stechford 2253/9

RADIANT-HEATING LTD.
Radiant Works, Barnsbury Park, London, N.1. North 1677

RADIATION GROUP SALES LTD.
Radiation House, Stratford Place, London, W.1. Mayfair 6462

HENRY SLACK & SONS LTD.
New Factory, Accrington. Accrington 3684/5

STOVES LTD.
Rainhill, Liverpool. Prescott 6255/6

WM. SUGG & CO. LTD.
Vincent Works, Regency Street, London, S.W.1. Victoria 3211

VICTOR MANUFACTURING CO. (GREENGATES) LTD.
New Line Works, Greengates, Bradford. Idle 4

VULCAN STOVE CO. LTD.
Exeter, Devon. Exeter 75301/2

OFFICIAL PUBLICATIONS

British Standards

B.S.78 : 1938. C.I. pipes (vertically cast) for water, gas and sewage.

B.S.143 : 1952. Malleable C.I. and copper alloy pipe fittings.

B.S.486 : 1933. Asbestos cement pressure pipes.

B.S.534 : 1934. Steel S & S pipes and specials for water, gas and sewage.

B.S.659 : 1955. Light gauge copper tubes for water, gas and sanitation.

B.S.788 : 1938. W.I. tubes and tubulars, gas (light), water (medium), steam (heavy), qualities.

B.S.1211 : 1945. Centrifugally cast (spun) iron pipes for water, gas and sewage.

B.S.1304 : 1946. "Ready-to-fit" thermal insulating materials for hot and cold water supply and central heating installations for small dwellings.

B.S.1387 : 1947. Steel tubes and tubulars suitable for screwing to B.S.21 pipe threads.

B.S.1737 : 1951. Jointing materials and compounds for water, town gas and low-pressure steam installations.

B.S.1740 : 1951. Wrought pipe fittings iron and steel (screwed B.S.P. thread).

B.S.270 : 1948. Plug-and-socket gas connectors for portable appliances.

B.S.669 : 1952. Flexible metallic tubing and connector ends for appliances burning town gas.

B.S.746 : 1937. Gas meter unions.

B.S.884 : 1941. Low-pressure gas mantles.

B.S.1250 : 1955. Domestic appliances burning town gas. Part 1. General requirements. Part 2. Specific requirements for

cookers, hotplates, grillers and boiling burners. Part 3. Water heaters other than washboilers and washing machines.

B.S.1381 : 1947. Gas lighting units and fittings for single family dwellings.

B.S.1396 : 1947. Gas meter cupboards.

B.S.1401/3 : 1947. Copper and brass tubes for gas installation work and gas lighting.

B.S.1552 : 1950. Control plug cocks for low-pressure gas.

B.S.1945 : 1953. Fireguards for heating appliances.

Codes of Practice

C.P.331.101 : 1947. Gas service pipes.

C.P.331.102 : 1947. Gas metering and consumers' control.

C.P.331.103 : 1947. Gas installation pipes.

C.P.331.104 : 1947. Code for flues for gas appliances.

C.P.332.101 : 1947. Gas lighting—single family dwellings.

C.P.332.201 : 1947. Domestic hot water supply by gas—single family dwellings.

C.P.332.202 : 1948. Domestic hot water supply by gas—(schools).

C.P.332.301 : 1947. Space heating by means of independent gas appliances.

C.P.332.303 : 1951. Installation of gas-fired boilers for central heating and hot water.

C.P.332.401 : 1947. Gas cooking installations—single family dwellings.

C.P.332.501 : 1947. Gas-operated refrigerators.

C.P.332.601 : 1947. Installation of gas heated appliances for laundering and ancillary domestic purposes.

C.P.342 : 1950. Centralised domestic hot water supply.

ABBREVIATIONS USED IN THE TABLES PP 567-576

The following abbreviations are used in the tables: Al—aluminium, B—brown, Be—beige, Bf—buff, Bl—black, Bu—blue, By—burgundy, Bz—bronze, C—cream, C.I.—cast iron, Cr.—chromium, EDN—eau-de-nil, F—fawn, G—green, Go—gold, Gy—grey, I—ivory, M—mushroom, Mn—maroon, P—primrose, Pw—pewter, R—red, S—scarlet, SE—stove enamel, Sl—silver, Sn—stone, VE—vitreous enamel, W—white.

WATER HEATERS

Supplier	Model	Type	Overall Dimensions H x W x D	Output per minute in galls.	Finish	Remarks
ASCOT GAS WATER HEATERS LTD.	SG 32/1	Single point bath heater	4' 0½" x 1' 2½" x 8½"	2 at 120 deg. F.	W or C, VE with Cr. fittings	Pilot safety device and 12" swivel spout For tank or main water supply.
	RS 52/1	Single point sink heater	2' 4½" H x 7" dia.	½ at 120 deg. F.	as above	Three heat control giving water at 120, 150, or 212 deg. F.
	503/0	as above	2' 1" x 6½" x 6½" or 8½" with tap	½ at 120 deg. F.	as above	Provides water at 100, 120 or 150 deg. F. Hot tap only.
	503/1	as above	as above	as above	as above	As above but fitted with hot and cold taps.
	503/2	as above	as above	as above	as above	As above but hot tap only and fitted built-in rotary gas control cock.
	503/3	as above	as above	as above	as above	As above but with hot and cold taps.
	503/4	Multi-point sink heater	2' 1" x 6½" x 6½"	as above	as above	Provides water at 100, 120 or 150 deg. F. No tap or spout.
	503/5	as above	As above but 8½" deep with tap	as above	as above	As above but with swivel spout and hot water tap.
	503/6	as above	as above	as above	as above	As above but also fitted with cold water tap.
	509	Single point	2' 1½" x 7½" x 7½" or 8½" with taps	—	as above	3 heat control provides warm, hot or boiling water instantaneously.
	709	Multi-point heater	3' 4" x 1' 2½" x 8½"	2 at 120 deg. F.	as above	Pilot safety device, rotary gas control cock and gas governor. For tank or main water supply. Provides water at 120 or 150 deg. F.
	709B	as above	as above	as above	as above	As above but for main water supply only. Also incorporates water governor and five-point temperature selector.
	715	Balanced flue multi-point heater	2' 9" H x 1' 3½" D.	2 at 120 deg. F.	as above	For installation in walls of 11 to 24" max. thickness. Has pilot safety device.
	715/1	as above	as above	as above	as above	As above but for building in to walls of 17 to 28½" max. thickness. Outer case not required.
	901	Large Multi-point water heater	3' 10" x 1' 4½" x 9½"	2½ at 120 deg. F. up to 4½ at 90 deg. F.	as above	With draught diverter and pilot safety device. For tank or main water supply.
	901B	as above	as above	as above	as above	For mains supply only minimum pressure 15 lbs. sq. in.
AUTOCONTROL BOILERS LTD.	Vertex no. 0	Storage circulator	3' 0" x 1' 4" x 2' 2"	—	Steel VE	Output on 500 cv gas—50,000 B.Th.U.s per hour. Flue size 4". Gas supply size ¾". Fitted with flame failure device, gas governor, relay control valve, thermostat, thermometer, main and pilot gas cocks and asbestos down draught diverter.
	Vertex no. 1	as above	3' 1" x 1' 10" x 2' 6"	—	as above	As above but output—80,000 B.Th.U.s per hour, flue size 5" and gas supply size 1".
	Vertex no. 2	as above	3' 10" x 1' 10" x 2' 6"	—	as above	As above but output—160,000 B.Th.U.s per hour and flue size 7 in.
	Vulcan no. 1	as above	2' 0" x 1' 6" x 1' 2"	—	W, C, EDN C.I.	Output 30,000 B.Th.U.s per hour. Gas supply size ½". Fitted with thermo- couple flame failure, safety control and all the controls of the larger models.
BARRALET'S ENGINEERING CO.	65c.	as above	2' 2" H x 7½" Dia. with 3" I/D vent.	16 galls. hr. raised through 85 deg. F.]	C, VE	Primarily intended as auxiliary to range or hot water boiler system. Gas rate: 40 cu. ft. per hr. (500 c.v.) 20,000 B.Th.U. Thermostatic gas control and pilot safety device incorporated.
THOMAS DE LA RUE & CO. LTD. (POTTERTON DIVISION)	Diplomat 44	Storage circulator	2' 8½" x 1' 3" x 2' 3"	—	C, W, S, G	Gas rating 55,000 B.Th.U./hr. Output 44,000 B.Th.U./hr. Designed to serve 65 gall. storage tank or 6 or 7 radiators. Fitted with thermostat, gas pressure control governor, flame safety device and concealed controls.
	Empire 1, 2 & 3	as above	(1) 2' 0" x 1' 1½" x 1' 8" (2) 2' 0" x 1' 1½" x 1' 4½" (3) 1' 9½" x 2' 0" x 2' 2"	—	Al	Outputs: 22,500, 30,000 and 45,000 B.Th.U./hr. Fitted with flame failure device and thermostats. Draught diverter must be fitted.
	Emperor 1, 2 & 3	as above	as above	—	Gy.	As above.
	Rex Series 1 nos. 12, 13 & 14	as above	2' 7½" x 1' 6" x 2' 0", 2' 6" and 3' 0"	—	Bl, Al, or Gy VE	Outputs 66,000, 99,000 and 132,000 B.Th.U./hr. Draught diverter incor- porated in design. Flame failure device, thermostat, pressure governor and pilot fitted.

Water Heaters

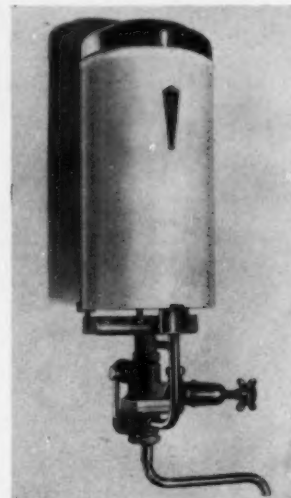
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1. Speedlyn S30 by Radiation Group Sales Ltd.



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2. No. 709 heater by Ascot Gas Water Heaters Ltd.



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3. No. 2DGA by Ideal Boilers and Radiators Ltd.



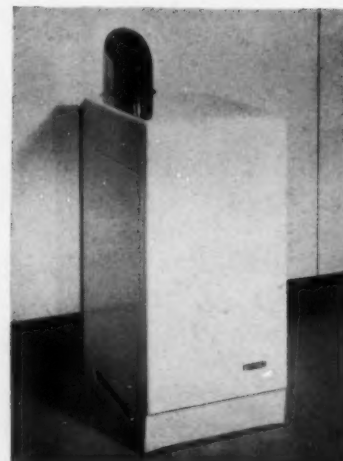
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4. Thermain No. 2 by R. & A. Main Ltd.



5

5. M75 by Ewart & Son Ltd.



8

6. Superb S70 by Frederick Kay (Engineering) Ltd.



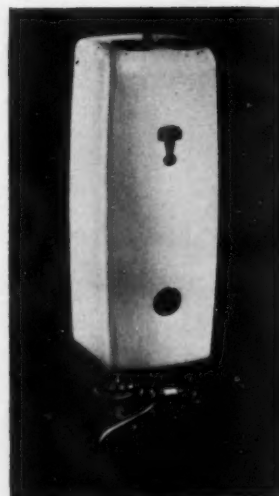
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7. Ensign by Meters Ltd.



6

8. Diplomat 44 by Thomas De La Rue & Co. Ltd.



9

9. No. 20 National De Luxe by Sidney Flavel & Co. Ltd.

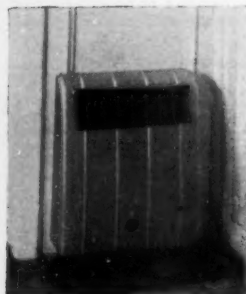
Water Heaters continued

Supplier	Model	Type	Overall Dimensions H x W x D	Output per Min. in Galls.	Finish	Remarks
THOMAS DE LA RUE & CO. LTD. (continued)	Rex series D nos. 2, 3 and 4	as above	2' 7½" x 1' 7½" x 2' 0", 2' 6" and 3' 1"	—	as above	As for Series I nos. 12, 13, 14.
	Victor 19	as above	1' 8½" x 1½" x 1' 10"	—	Al paint or Gy VE	Output 22,500 B.Th.U./hr. Flue outlet 3". Fitted with thermostat and flame failure device. Draught diverter must be fitted.
	Victor 20	as above	1' 8½" x 1' 1½" x 2' 1½"	—	as above	Output 30,000 B.Th.U./hr. Flue outlet 3½". Otherwise as above.
EWART & SON LTD.	M.75	Instantaneous Sink heater	1' 11" (2' 3½" with spout) x 8½" x 6½"	5 pints	W, C, VE	Fixes flat on wall. Connections can be made to two points.
	S.140	Instantaneous Bath heater	2' 9" x 10½" x 11"	2.5	W, St. En.	Rating 70,000 B.Th.U./hr. Flue outlet 4". Swivel spout.
	30	as above	3' 1" x 11½" x 1' 1"	3 galls. raised 43 deg. F. per min.	W, VE	Spout projects 5½". Gas and water connections ½" and ½" respectively, flue outlet 4½", condensation outlet ½".
	150	as above	2' 11" x 11½" x 1' 1"	as above	as above	Spout projects 4", gas and water con- nections as above, flue outlet 4", condensation outlet ½".
	M210	Instantaneous multipoint heater	3' 5½" x 1' 1½" x 10"	3½ raised 40 deg. F. galls. per min.	as above	Safety cut-off device and automatic gas volume governor fitted. Flue outlet 5".
SIDNEY FLAVEL & CO. LTD.	No. 23 National de luxe	Instantaneous Sink heater	2' 1½" x 8½" x 7½"	½	W, C, VE	Rating 35,000 B.Th.U./hr. Gas con- nection ½" B.S.P. Spouts 6" standard, 9, 12 or 18". Casing fits flush to wall. All working parts totally enclosed.
IDEAL BOILERS & RADIATORS LTD.	No. 1 DGA	Storage circulator	1' 11½" x 1' 6½" x 1' 9"	—	Bl. C. VE	Rating 20,030 B.Th.U./hr. Fitted with gas governor and safety device. Smoke outlet 3". Tank size 25/30 galls. Thermostatic control.
	No. 2 DGA	as above	2' 2½" x 1' 6½" x 1' 9"	—	as above	Rating 30,000 B.Th.U./hr. Tank size 30/40 galls. otherwise as above.
	No. 3 DGA	as above	2' 2½" x 1' 11½" x 1' 9"	—	as above	Rating 45,000 B.Th.U./hr. Tank size 50/60 galls., smoke outlet 4½" otherwise as above.
FREDERICK KAY (ENGINEERING) LTD.	Popular P30	as above	2' 8" x 1' 6" x 1' 2"	—	Any colour SE	Rating 30,000 B.Th.U./hr. Thermo- static control. All controls enclosed. Rear flue with down draught diverter. Automatic safety cut-off. 3" flue pipe
	Popular P45	as above	2' 8" x 1' 10" x 1' 2"	—	as above	As above but 45,000 rating and 5" flue pipe.
	Superb S33	as above	2' 8" x 1' 0" x 1' 6" (plus 7" flue)	—	C, W or pastel shades	Rating 30,030 B.Th.U./hr. Thermostatic control. Governor and safety cut-off. 3" flue pipe.
	Superb S45	as above	2' 8" x 1' 6" x 1' 7" (plus 8" flue)	—	as above	As above but rating 45,000 and 4" flue pipe.
	Superb S70	as above	as above	—	as above	As above but rating 70,000.
	Superb S99	as above	2' 8" x 1' 6" x 2' 1" (plus 9" flue)	—	as above	As above but rating 99,000 and 5" flue pipe.
R. & A. MAIN LTD.	Minimain 60	Instantaneous Sink heater	Wall mounting: 6½" x 20" x 5½" Shelf mounting: 9" x 20" x 6"	45 galls. per min. raised 80 deg. F.	Al.	Products deflector and interlocking gas and water taps with pilot light. Gas consumption 30,000 B.Th.U./hr.
	New Junior	Instantaneous Bath heater	3' 3" x 10" dia.	2½	W, VE.	Rating 75,000 B.Th.U./hr. Flue size 4".
	Thermain No. 2	Sink Storage heater	2' 1½" x 11" x 8"	2 galls. capacity	C, Bl.	Gas rating 7,500 B.Th.U./hr. No flue way needed.
	Thermain No. 15	Storage heater	3' 3" (3' 9" with baffle) x 2' 2½" x 1' 0"	15 gall capacity	C, W.	Rating 10,000 B.Th.U./hr. Recovery rate 8.3 galls. per hr. raised 90 deg. F.
METERS LTD.	Ensign	Instantaneous sink	1' 8½" H. (plus 3" for spout) x 6½" Dia.	½	C, W, VE	Gas rating 30,000 B.Th.U./hr. Suitable for connection to main or service tank.
RADIATION GROUP SALES LTD.	Circulyn C125	Storage circulator	1' 4½" x 9" D. x 5½" Dia.	5½ galls./hr. raised 80 deg. F.	W, VE	Input 6,000 B.Th.U./hr. Gas consump- tion controlled by automatic regulator.
	Circulyn C28	as above	1' 7½" x 11" D. x 8" Dia.	13 galls./hr. raised 80 deg. F.	W, VE.	Input 14,000 B.Th.U./hr. otherwise as above.
	Circulyn C695.	as above	2' 5½" x 1' 2½" D. x 10½" dia.	28 galls./hr. raised 80 deg. F.	W, VE	Input 30,000 B.Th.U./hr. otherwise as above.
	Equator H153	Storage multipoint	4' 4" x 1' 11" x 1' 10"	25 galls./hr. raised 80 deg. F.	W	Rating 27,500 B.Th.U./hr. Capacity 12 galls.
	Equator W157	as above	4' 2½" x 2' 3" x 2' 1"	as above	W	As above. Capacity 18 galls.
	Equator W158	as above	4' 10" x 2' 4" x 2' 4"	40 galls./hr. raised 80 deg. F.	W	As above but capacity 25 galls.
	Lynmere 4436	as above	3' 5½" x 1' 9½" x 1' 6½"	6½ galls./hr. raised 80 deg. F.	W	Storage capacity 16 galls. Gas input 7,500 B.Th.U./hr.
	Newlyn S12/2	Single point storage sink	2' 0" (body 1' 5") x 1' 1½" x 8"	5 galls./hr. raised 80 deg. F.	W/Bl. VE	Rating 6,000 galls./hr. 2 galls. capacity.
	Newlyn 4388	as above	2' 1" (body 1' 5½") x 1' 10" x 8½"	as above	VE	As above but 5 galls. capacity.
	Speedlyn S.30	as above	1' 8½" x 1' 1½" x 7' 1"	2	W, C, VE	Input 15,000 B.Th.U./hr. Capacity 1½ galls. Streamline design.

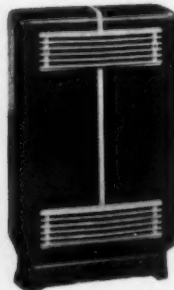
SPACE HEATING APPLIANCES

Supplier	Model	Type	Overall Dimensions H x W x D	Rating B.Th.U./hr.	Finish	Remarks
F. H. BIDDLE LTD.	Gasvectair	Fixed flueless convector	12 sizes—2' 0", 2' 6" and 3' 0" High ranging from 1' 7" to 3' 1" wide and all 6" deep	From 4,500 to 13,500	Go.	Fitted with thermostatic control. Adjustable governor can be set on site to suit type of gas supplied in the area. Stainless steel louvred outlets.
F. A. BORCHARDT LTD.	Drugasar	Balanced flue heater	7 models ranging from 2' 0½" x 2' 3½" x 8½" to 2' 8½" x 4' 7" x 1' 0"	From 11,700 to 44,500	B.	Designed to give convected and radiated heat. Requires no chimney flue and there is no projection on the outside walls. Can be fitted with flame failure device, flint ignition and room thermostat.
BRATT COLBRAN LTD.	Bamburgh	Convector hearth fire	2' 2" x 1' 7" x 6" forward projection	18,000	Bz, Be, Go	Gives convected and radiant heat. Height of flue spigot 1' 7". Minimum space for fixing 1' 7¼" x 1' 0"
	Camelot	Hearth fire	1' 9½" or 2' 2" x 1' 7" x 6" forward projection	as above	as above	Radiant fire, otherwise as above.
	Denbigh	as above	1' 10½" x 1' 5½" or 1' 8½" x 4½" or 3½" forward projection	18,000 or 24,000	as above	Radiant fire. Heights to top of flue outlet 1' 8½" or 1' 9½". Minimum space for fixing 1' 9" x 1' 3½" x 4½" or 1' 9½" x 1' 3½" x 4½".
	Fitzroy	Floor fixing convector	2' 5" x 1' 10" x 7½"	6,000 or 10,000	Go with Bl grille	Gas consumption governor fitted also glass lighting window.
	Lulworth	Hearth fire	2' 4" x 1' 10" x 5½" forward projection or 2' 3½" x 1' 11" x 4½"	18,000 or 24,000	Bz, Be, Go	As for Denbigh but fixing depth 3".
	Lutello	Panel radiant	2' 1" x 1' 5" x 3½" forward projection	12,000	as above	Recommended wall opening 2' 0" x 3½". Designed primarily for bedrooms.
	Mortimer	Floor fixing radiator	2' 7½" x 1' 3½" x 6½"	10,000	as above	A flueless heater designed for permanent floor fixing and connection to a rigid supply.
	Penrith	Hearth fire	2' 4½" x 1' 9½" or 2' 0½" x 1' 9½" or 3½" forward projection	18,000 or 24,000	Bz, Be, Go	Radiant fire. Heights to top of flue outlet 1' 8½" or 1' 9½". Minimum space for fixing: 1' 9" x 1' 3½" x 4½" or 1' 10" x 1' 3½" x 4".
	Portello	Panel radiant	2' 0½" x 1' 6½" or 1' 9½" x 1½" forward projection	as above	as above	Recommended wall openings: 2' 0" x 1' 6" or 1' 9" x 6½".
	Port Royal	Convector/radiant	2' 1½" x 1' 7½" x 7½" forward projection Back projection 1' 8½" x 11" x 2½"	16,000	as above	Height to top of flue spigot 1' 7½". Minimum space for fixing 1' 8½" x 11½" x 3½".
CANNON (G A) LTD.	Gas Miser	Radiant convector	2' 0½" x 1' 6½" x 7"	Each fire has 3 rates: 6,000, 11,000 & 18,000	Go	Can be adjusted to three burning rates: Miser rate, Normal rate and Super heat.
FALK, STADELMANN & CO. LTD.	Thermvec G7739I	Fixed Convector /radiator	2' 1½" x 1' 4" x 10½"	Consumption 16 cu. ft. /hr.—500 cv gas	Pw, Go, Bz	Fitted with jet burner, constant pressure pattern governor. Average surface temperature 100 deg. F. Floor temperature rise less than 10 deg. F. above room temperature.
SIDNEY FLAVEL & CO. LTD.	Camberwell	Hearth fire	2' 3½" x 2' 6½" x 7½" projection	30,000	C, Bl, Bz, Go, B, Be	Consists of 3 radiant heat units, each 10,000 B.Th.U./hr. rating and each with independent burner. Centre unit only or centre and either side or all three units may be used. Constant pressure governor.
	Panel	Panel fire	1' 11½" H. x 1' 3½" W. Max. wall opening: 1' 10½" x 1' 1½" x 3½"	10,000	C, Go, G, B, Be, Go, G, Go	Designed for building into standard brick flues or "Nautilus" type gas flues. Removable fender front gives access to gas connection and governor.
	Vek 2	Fixed flueless heater	1' 0½" x 2' 0" x 4½" projection	3,000	B, Bz, Go, C, SE	Designed for small halls, bathrooms or background heating. Brackets provided for fixing to wall above skirting board or below a window.

"Fitzroy"



"3161"



"Merlin 378"



"Floortherm" "Thermvec" G7739I



Supplier	Model	Type	Overall Dimensions H x W x D	Rating B.Th.U. hr.	Finish	Remarks
FORTH & CLYDE & SUNNYSIDE IRON COS., LTD.	Mural no. 20	Panel	2' 1½" x 1' 5" x 3½"	—	VE in several colours.	Designed for fitting direct to plastered wall but can be fitted to tile or other decorative surround. Horizontal replaceable radiants. Gas governor.
GENERAL GAS APPLIANCES LTD.	Conray	Convactor/Radiant	2' 1½" x 1' 7½" x 7½" Space for fitting: 1' 10" x 1' 1½" x 3½"	16,500	R/SI, M/SI, Be B, Go SI.	For grate fitting or building in to wall. Gas control at top of fire (push-in type). Flue nozzle 5½" x 1
JOHN HARPER & CO. LTD.	325	Towel Rail	3' 1½" x 2' 4" x 8"	2,250	I, G.	Heat sufficient to "air" the bathroom. Governor control fitted. May be screwed to floor.
	3160	Convactor/Radiator	2' 1" x 1' 5" x 6½"	5,400	Bz.	Constant volume governor, average surface temperature 90 deg. F., floor temperature rise less than 10 deg. F. above room temperature.
	3161	as above	2' 5½" x 1' 5½" x 7"	8,100	Bz.	As above but average surface temperature 100 deg. F.
	4008	as above	1' 8½" x 1' 0½" x 5½"	3,600	Bz, Bu.	As above but surface temperature average 118 deg. F.
HURSEAL LTD.	HG 1	Radiator (fixed flueless heater)	2' 4" x 1' 6" x 7½"	3,500	Bz.	Oilfilled. 5 gas jets. Governor extra. Floor fixing.
	HG 2	as above	2' 4" x 2' 3" x 7½"	5,000	Bz.	As above
	GLF 30	Towel Rail	3' 2½" x 2' 10½" x 4"	500	Cr.	Supplies background heating of bathroom. Floor fixing.
	GLF 36	as above	3' 2½" x 3' 4½" x 4"	500	Cr.	As above. Both models reach 90 per cent efficiency in 40 min.
LLOYD-METCALFE DESIGNS LTD.	Royal	Fixed flueless Convactor	1' 0" x 2' 0" x 4½"	3,000	Go/Bz	Minimum distance required above and below 6". Designed for wall fixing in halls and passages. Also background heater for larger rooms.
R. & A. MAIN LTD.	No. 55	Radiant Convactor	2' 2" x 1' 7" x 8½"	1,800	Bz, Go, SI, EDN, Bu, Sn.	Designed to stand flush in any position with convenient flue outlet. Height to top of flue outlet 1' 6½".
	Newscreen (1) 3205 and (2) 3207	Radiant fire	(1) 1' 9½" x 1' 2½" (2) 2' 0" x 1' 5½"	—	Two-colour finishes	Designed to stand in front of normal fireplace. Heights to top of flue (1) 1' 6½", (2) 1' 9½".
	Velomain 2023	Fixed flueless heater	2' 6½" x 1' 1½" x 5½"	8,000	as above	Sheet steel body strengthened by cast iron base, mid-plate and burner and construction permits easy access to any part.
PARKINSON STOVE CO. LTD.	Paravector	as above	2' 6" x 1' 7" x 11½"	8,000	Bz, with B, VE grille	Fitted with non-aerated burners, constant pressure governor and fixed restrictor control. Removable panel.
RADIANT-HEATING LTD.	Floortherm	Fixed flueless Convactor	2' 6½" x 1' 7½" x 8½"	20 cu ft/hr	Bz/G, B, VE	Designed for screwing to floor. Body in either cast iron or sheet steel. Governor and gas control cock fitted.
RADIATION GROUP SALES LTD.	Gas & Coke	Hearth fire	To fit standard 16" fireplace openings	12,000/12,500	C, VE	Provides a combination of intermittent heating by gas and full winter warmth by solid fuel.
	Hadrian 527	as above	2' 2" x 1' 6" x 7½" projection	16,000	Go, Bz, Sn.	Recess dimensions: max. 2' 0" x 1' 4" x 3½", min. 1' 7½" x 1' 0" x 3½". Height to top of flue outlet 1' 7½". Min. width of flue nozzle opening 12".
	Malmesbury 7607F & 7609F	as above	(1) 2' 2" x 1' 6" x 2" front and 3½" back projection. (2) as above but 1' 8" W	16,000 and 24,000	as above	3 position tap. Recess dimensions: max. 2' 0" x 1' 4" or 1' 6" x 3½", min. 1' 7½" x 1½" or 1' 4½" x 3½". Height to top of flue opening 1' 8½" or 1' 7".
	Merlin 37B	Flueless heater	2' 4½" x 1' 4½" x 8½"	6,000	Go, Bz.	Concealed brackets fitted for floor fixing. Constant pressure governor and frontal ignition tube.
	St. Stephen 495 & 499	Flueless heater	(1) 3' 0" x 1' 6" x 7" (2) 3' 0" x 2' 1½" x 7"	(1) 7,500 (2) 12,000	as above	Designed for rooms of 1,700 and 2,800 cu. ft. capacity. Constant pressure governor and frontal ignition tube fitted.

"Gas Miser"



"Mural 20"



"Main No 55"



"Crawley"



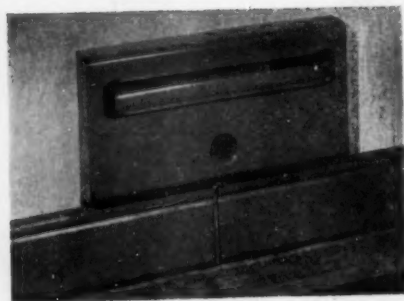
"Conray"



Space Heating Appliances—continued

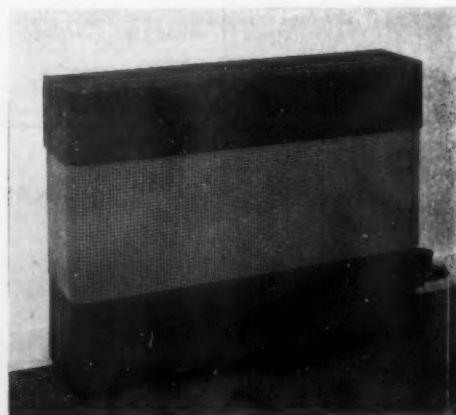
Supplier	Model	Type	Overall Dimensions H x W x D	Rating B.Th.U./hr.	Finish	Remarks
RADIATION GROUP SALES LTD.	Stoneleigh 5707 & 5709	Inset hearth	1' 5" x 1' 4½" or 1' 8½" x 1½" front and 3½" back projection.	16,000 and 24,000	Go, Bz, Sn.	Three position tap. Recess dimensions: 1' 6" min. H. x 1' 3½" x 1' 8½", max. and 1' 0½" and 1' 5" min. W. x 4" D.
	Tewkesbury 7907 & 7909	Hearth fire	2' 2" x 1' 6" or 1' 8" x 4½" front and 8" back projections	16,000 and 24,000	Go, Bz, Sn	3 position tap. Recess dimensions: max. 2' 0" x 1' 4" or 1' 6" x 3½" min: 1' 7½" x 1½" or 1' 4½" x 3½". Height to top of flue outlet 1' 6½" or 1' 7".
	Vecta Beam 877	Convactor hearth	2' 2½" x 1' 6" x 7½" forward and 2½" back projection	16,000	Go, Bz.	Provides both convected and radiant heat. 3 position tap and constant pressure governor. Chimney break box built in to back of fire to minimise effect of variations in chimney pull.
	Wenlock 7505, 7507 & 7509	Panel fire	(1) 1' 10½" x 1' 4½" x 3½" forward and 3½" back projection. (2) 1' 10½" x 1' 7½" x as above. (3) 1' 10½" x 1' 11½" x as above.	(1) 12,000 (2) 16,000 (3) 24,000	Go, Bz, Sn.	Recess dimensions: (1) 1' 9" x 1' 0", (2) 1' 9" x 1' 3", (3) 1' 9" x 1' 6". Fixing brackets and plaque supplied
	Ducted Air	Whole-house warming	Floor space 1' 6" x 1' 8"	40,000	—	The gas operated chimney furnace consists of a gas burner chamber, single heat tube exchanger and integral draught diverter fitted into insulated recess with front closed off with insulated panels. Fan is mounted above or at side of recess and when furnace is used in conjunction with warm air ducted system, air is drawn from intakes, warmed by heat exchanger and passed to rooms by ducting.
WILLIAM SUGG & CO. LTD.	CP type A	Fixed flueless Convactor	2' 6" x 1' 1½" x 8½"	5,000	Bz.	Fitted with pressure control governor, luminous regulator jet, insulating duct and right and left hand lighting ports. Floor fixing. 6 burner jets.
	CP type B	as above	as above	5,000	Bz.	As above but with 4 non-aerated burners.
	Crawley	Convactor/hearth	2' 1½" x 1' 7" x 3½" (flue spigot projection 2")	32 cu. ft./hr.	Go, SE	Also gives radiant heat. Min. opening for fitting 1' 7" H. x 1' 0" W. Gas rate control governor fitted. Suitable for rooms up to 2,000 cu. ft.
	Sapphire 10	Balanced flue heater	2' 1" x 1' 10" x 5½"	5,000	Go, SE	Flue suitable for any wall up to 1' 4" thickness. Screw-in pressure control governor, and permanent pilot jet ignition fitted.
	Sapphire 20	as above	2' 10" x 2' 2½" x 7½"	10,000	Bz, SE	As above.
	Windsor	Fixed flueless convactor	2' 6" x 1' 6½" x 6"	10,000	Go, Bz.	Designed for floor fixing. Governor fitted. Ignition through front base grille.
VULCAN STOVE CO. LTD.	Vulcan 705	Panel fire	1' 9" x 1' 2½" x 3" forward projection	10,000	Bl. or coloured SE	Flue outlet 7" x 2". Space for fixing 1' 8" x 11½" x 3½". Governor and control cock fitted.

"Gasvetair" convection
heater by F. H. Biddle Ltd.



Vek No. 2 by
Sidney Flavel & Co. Ltd.

Recent Models

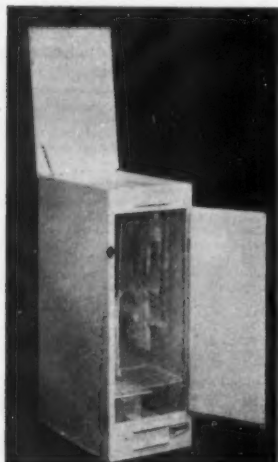


"Drugasar" Heater by
F. A. Borchardt Ltd.

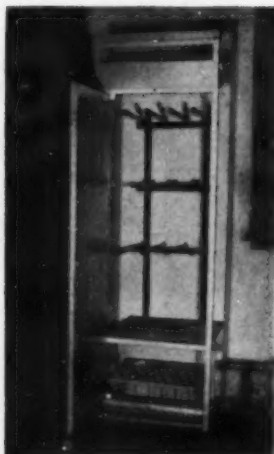
Drying Cabinets

A List of Manufacturers:

Barralets Engineering Co. Ltd.
Clifford Products Ltd.
Sidney Flavel & Co. Ltd.
J. Glover & Sons Ltd.
Victor Manufacturing Co. (Greengates) Ltd.

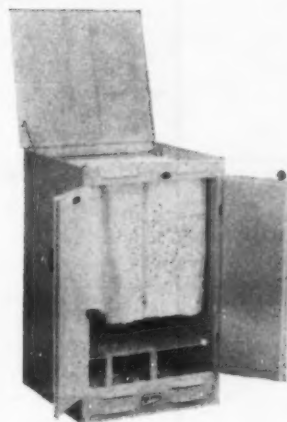


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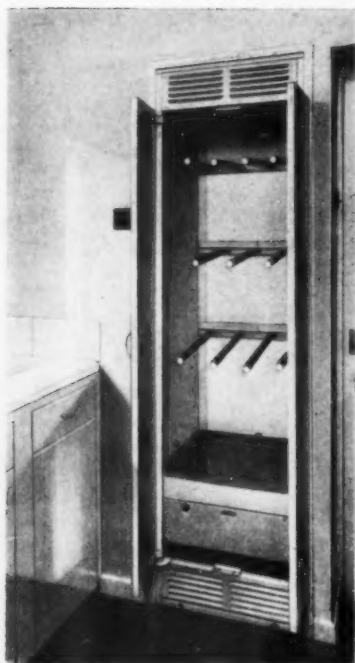


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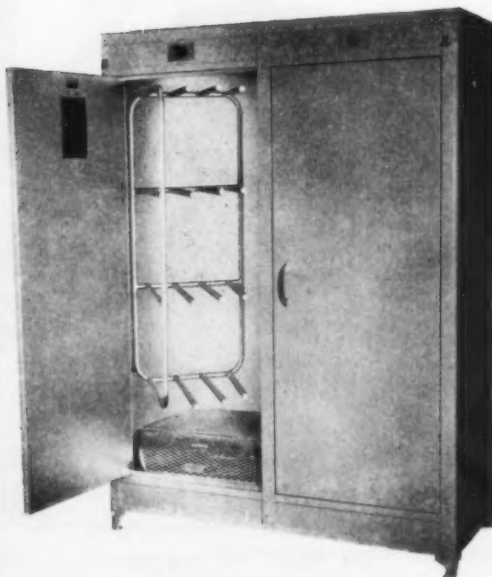
1. "Victor" Junior Clothes Drier by Victor Mfg. Co. (Greengates) Ltd.
2. "Drying Cubicle" by Barralets Engineering Co. Ltd.
3. "Victor Standard" by Victor Mfg. Co. (Greengates) Ltd.
4. "Clothes Dryer" by Sidney Flavel & Co. Ltd.
5. "F 48" Drying Cabinet by J. Glover & Sons Ltd.
6. Drying Cabinet by Clifford Products Ltd.



3



4



5



6

WASH BOILERS AND WASHING MACHINES

Supplier	Model	Type	H x W x D	Gas Rate	Finish	Remarks
W. H. DEAN & CO. LTD.	A. I Gas/Electric	Washing machine	2' 5½" x 1' 8" x 1' 10" To tap: 12½"	20,000 B.Th.U./hr.	C, W, VE	Rollers 10" wide. Gas connection ½". Will wash 4½ lbs. clothes in 3 minutes. Capacity of pan 6½ gallons. Plastic agitator. Wringer storage compartment in rear.
	A101/1	Wash boiler	2' 6½" x 1' 7" x 1' 10½" To tap: 12½"	20,000 B.Th.U./hr.	as above	Rollers 10" wide. Gas connection ½". Wringer folds into machine when not in use. Hand agitator available as extra.
	927	Wash and bath boiler	2' 6" x 1' 5½" x 1' 10½" To tap: 11½"	—	W, C, G, Gy/W, VE	Designed for producing hot water for a bath in addition to wash boiling. 1" hot water outlet in all four sides for attaching copper pipe by capillary jointing to discharge hot bath water. Pan capacity 7½ gallons.
ECONOMIC GAS BOILER CO. LTD.	Apex	Wash boiler	2' 11" open (2' 6" closed) x 1' 6" x 1' 9"	—	W, C	Foldaway 10" wringer. Corrugated pan sides to give increased turbulence. Manual agitator extra.
	Ega	Electric/gas Washing machine	2' 10" (3' 6" with wringer) x 1' 6" x 1' 6"	—	C, W, VE	Has powered agitator, powered reversible wringer, pump emptying and boils by gas. Washes up to 5 lbs. clothing in 3½ minutes. Fills by means of hose and empties automatically in 3 minutes. Capacity 10 galls. nominal and 7 galls. to agitator water mark.
	No. 24 de luxe	Wash boiler	2' 5½" x 1' 5½" x 1' 10½" (closed)	—	as above	"Smoothline" tap flush to case is controlled by opening and shutting concealing door. Table top 1' 6" x 1' 6". Capacity: nominal 10 gall., 7½ gall. to 3" from top.
ELECTROLUX LTD.	TMG 50/70	Washing machine	3' 2½" (4' 7" open) x 3' 0½" x 2' 0"	—	Chrome steel	Can handle 22 lb. dry weight clothing in one operation. Can also be run by electricity and direct or indirect steam. May be operated from cold water supply only. Outer drum capacity 50 gallons. Twin ring burner fitted in insulated combustion chamber below the outer drum.
G. L. HOWARTH & CO. LTD.	Coronet	Wash boiler	2' 6½" x 1' 6½" x 1' 9½" closed 3' 3½" x 2' 1" x 2' 3" open	—	C, W, VE	10½" foldaway wringer. Nominal capacity 10 galls. but 6½ galls. to 3" from top. Can boil 10 galls. in less than 1 hour.
	Rapid—R7	as above	2' 11½" (3' 6" with wringer in position) x 2' 3" x 1' 9½"	—	C, W, VE Top in C or W with Mn.	Manual agitator available. 16" Acme wringer fitted. Boils within an hour. Pan capacity 11 gallons.
	R9	as above	2' 4½" x 1' 5" x 1' 9½"	—	C, W, VE	Nominal capacity 9½ galls. but 7½ galls. to 3" from top. Fitted with flash ignition and castors for easy movement.



The "Ega" by Economic Gas
Boiler Co. Ltd.



"Live Water" by Parkinson
Stove Co. Ltd.



"Coronet" by G. L.
Howarth & Co. Ltd.



This recessed lighting scheme of the canteen in the American Embassy was designed by Philips

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"This," said the umpire,
"is an unfair
test!"



From the first ball of the season to the last, the pads that protect the cricketers of a Home Counties club would do credit to a soap-advertisement.

Yet they are whitened only once a year. Stains and ball marks wipe off time and time again. The secret is that someone has discovered yet another unofficial use for Pammastic.

The best Emulsion Paint in the world, Pammastic is not of course intended for cricket pads. But this successful misapplication — 'not out' after two seasons — demonstrates a point or two of importance: Pammastic is tough, long-standing and scrubbable, and can be used *outside* as well as in, on almost any surface.

Furthermore, it needs no primer or undercoat, and dries in an hour with a fine matt finish.

Additional information as to the properties of Pammastic — and its notable complementaries, Pammel (the luxury gloss finish), Pammelette (superfine Eggshell finish) and Pammatt (the superfine flat finish) — is available on request.

BLUNDELL PAINTS

BLUNDELL, SPENCE & CO. LTD., YORK HOUSE, 37 QUEEN SQUARE, LONDON, W.C.1



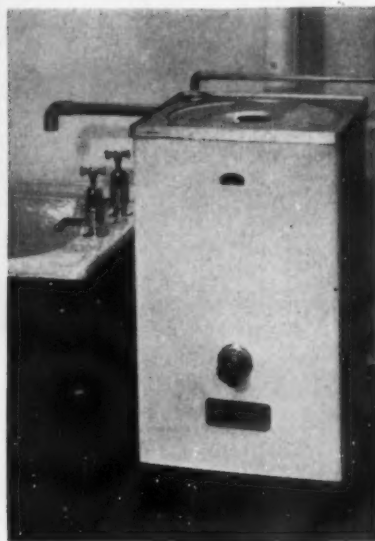
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Wash Boilers

1 "TMG 50/70" by Electrolux Ltd.

2 "927" by W. H. Dean & Co. Ltd.

3 "Slaxon Wringwash" by Henry Slack & Sons Ltd.



2



3

Supplier	Model	Type	H x W x D	Gas Rate	Finish	Remarks
MORLEY PRODUCTS (PADIHAM) LTD.	1A	Wash boiler	2' 4½" x 1' 10½" dia.	—	Gy, VE	Capacity 10 gallons. Corrugated copper pan.
	6B	as above	2' 4½" x 1' 9½" dia.	—	Galvanized	As above, both can have white VE table top.
	46F	as above	2' 5½" x 1' 8" x 1' 8½"	20,000 B.Th.U./hr.	C/BI, W/BI, F, Gy	Nominal capacity 10 galls. but 7½ galls. to 3" from top. Takes 1 hr. to boil and 4 minutes to empty. Flue outlet: 6 louvres at rear but 3" flue spigot may be used.
	GES1F	Washing machine Gas/electric	2' 5½" x 2' 0½" x 1' 8½" but 3' 6½" x 2' 6" x 2' 4½" with wringer raised	as above	C/BI, W, BI, VE,	Incorporates gas wash boiler with power agitator. Flash ignition and concealed emptying tap. 14" hand operated Acme wringer folds down at side of case when not in use and is hidden beneath lift-off table top. Capacity as for 46F. Washes ¾ lbs. dry clothes. Flue: 6 louvres at rear.
PARKINSON STOVE CO. LTD.	Live Water	as above	2' 6½" x 1' 4½" x 1' 6½"	—	W, C	Capacity: 8½ galls. water, 4½/5 lbs. dry clothes. Includes 10" built-in wringer. There are no moving parts in the tub, the "live water" washing action is achieved through 2 jets of water being pumped at force into the tub, thus tumbling the clothes. Water boiled by gas.
HENRY SLACK & SONS LTD.	Slaxon	Gas/electric Washing machine	3' 1" (2' 7½" closed) x 1' 6½" x 1' 10½"	—	VE	Heated by gas, agitated by electricity. Incorporates foldaway geared wringer, quick-emptying angled tap and flash-tube ignition. Table top 1' 6" x 1' 6".
	Slaxon Washmaid	Wash boiler	2' 6½" x 1' 5½" x 1' 8"	—	Gy, W, C, VE	Nominal 10 gall. capacity but 7 galls. to 3" from top. Fitted with flash tube ignition and two wheels for mobility. Table top forms splash back.
	Slaxon Wringwash	—	Closed: 3' 0½" x 1' 6½" x 1' 9½" Open: 3' 9½" x 2' 4" x 2' 7½"	—	as above	Has 14" folding Acme wringer. Flash tube ignition. Two wheels fitted for mobility.

Cookers

Supplier	Model	Overall Dimensions H x W x D	Oven Dimensions H x W x D	Hotplates	Finish	Remarks
CANNON (GA) LTD.	A130 de luxe	3' 0" (to hotplate), 4' 10" (over grill) 5' 3½" (over platerack) x 1' 9" (1' 11" with lighter) 1' 11½"	1' 4½" x 1' 6" x 1' 4½" (Depth of door when down 1' 5½")	1' 9" x 1' 7"	Gy. G, Bu, W, C, Bl.	High level foldaway grill and plate shelf. Oven has drop door. Deep plate warming drawer. Press button lighting to all four hotplate burners. Also supplied with separate grill unit which can be fixed in any position in the kitchen and not necessarily alongside cooker. 5-hour warning cook timer.
THOMAS DE LA RUE & CO. LTD. (POTTERTON DIVISION)	G4x Mark III	3' 0" (to hotplate) but 4' 6" over all or 5' 5½" with plate rack raised x 1' 10" or 1' 11" with lighter) x 1' 10½"	1' 4" x 1' 0½" x 1' 2½"	1' 6½" x 1' 5½"	C, W, Bl/C, G/C, VE	Has 4 boiling burners and an 8" grill. 12" x 12" baking tray. Removable splash plate. Oven thermostat.
	G5/B6	3' 0" (to hotplate) but 3' 8" with splash plate x 2' 7" x 2' 1½"	1' 5½" x 1' 9½" x 1' 3"	2' 4½" x 1' 8½"	C, Gy, G, Bl/W/C, VE	G5 has 5 boiling burners and high efficiency 10" grill and B6 has 6 burners. Available with or without plate rack.
	Warwick	3' 1" (to hotplate) but 4' 10" over all x 2' 6" or 2' 7½" (with lighter) x 2' 1½"	1' 5½" x 1' 10½" x 1' 4"	2' 6" x 1' 9"	Gy/W/By, P/W/Bl, G/W/Bl, G/C and Bu/W/Bl.	Oven has drop door. Sliding warming drawer at base. Special channel round each of the 5 hotplate burners. Eye level grill burner. Built-in 4-hour timer.
SIDNEY FLAVEL & CO. LTD.	Envoy	2' 11½"/3' 0½" (to hotplate) but 3' 8½", 3' 9½", 4' 8" or 4' 9" over all x 1' 9½" (1' 11½" with lighter) x 1' 11½"	1' 4" x 1' 6" x 1' 5"	1' 9½" x 1' 7"	I, R, Bu, By, B, Bl.	Incorporates long period timer, 4 hotplate burners, enclosed grill with drop door, storage drawer, pressbutton oven handle and patent warm control.
	Mercury	3' 0" (to hotplate) but 3' 9" or 4' 9" over all x 1' 9½" x 1' 10" or 1' 10½"	1' 4" x 1' 5" x 1' 2"	1' 9" x 1' 7"	W, I, F, VE	Bowfront design. Incorporates 4 burners grill pan and grid, 2 oven shelves, meat tin and cake tray.
	Pixie	1' 10" x 1' 5" x 1' 4"	Takes 3-4 lb bird	—	C, W, VE	Drop doors to oven and grill. Press-and-turn safety taps. Combined grill and dry fry griddle or 2 boiling burners.
	Leamington Hotplate	1' 0½" (7½" to hotplate) x 1' 7" x 1' 6½"	—	1' 7" x 1' 2"	C, VE	Has short splash plate with 2 C.I. hotplate sections. Also incorporates grill burner. Wall brackets available.
GENERAL GAS APPLIANCES LTD.	Crusader	3' 0" (to hotplate) but 4' 6½" over all x 1' 7½" x 1' 9"	1' 4" x 1' 3½" x 1' 2"	1' 7½" x 1' 4"	C, W, VE	Must be fitted at least 1½" from side walls. Incorporates governor, oven thermostat, splash plate, plate rack, 4 boiling burners and grill burner. Front flue outlet.
R. & A. MAIN LTD.	Century No. 20	3' 0" (to hotplate) but 4' 5" over all x 2' 9½" x 1' 8½"	1' 3½" x 1' 5" x 1' 3½"	1' 8½" x 1' 7½"	C, C/G, C/Bu.	Thermostatically controlled oven with drop type door. Double plate rack. Storage space in plinth base. 4 boiling burners and all taps are safety type. Lighter extra.
	Economain 109	as above but width 1' 8½"	as above	as above	C/Bl.	Thermostatically controlled oven with side hinged door. Back plate and plate rack. Otherwise as above.
PARKINSON STOVE CO. LTD.	Pearl	3' 0" (to hotplate) but 4' 5" over all x 1' 10" x 1' 11"	1' 4" x 1' 4" x 1' 1½"	1' 7½" x 1' 5½"	C, VE but panel may be G, R, Bu	Thermostatic control. Side hinged door. Back plate and plate rack. 4 boiling burners.
	Renown Six	3' 0" (to hotplate) but 4' 8" over all x 1' 11½" x 2' 0½"	1' 3" x 1' 6" x 1' 2½"	1' 10" x 1' 6½"	C, VE with coloured handles	4 boiling burners and eye level grill with 2 position reversible grid. Storage compartment beneath oven. Thermostatic oven control and drop type door.



Kitchenette No. 150

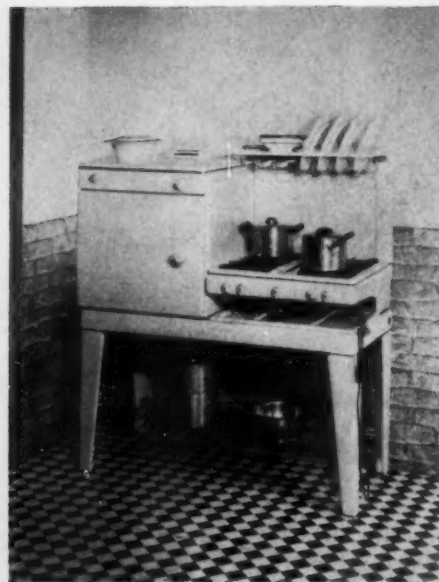


Leamington Hotplate

A130 De Luxe



New World Seventy One T.T.



Richard COSTAIN Limited

CRITTALL UNIVERSAL CASEMENTS

This illustration shows the new London offices of Richard Costain Ltd. which are fitted with CRITTALL PURPOSE-MADE UNIVERSAL CASEMENTS POSITIVELY RUSTPROOFED by the hot-dip galvanizing process. The offices were designed by the Company's staff in collaboration with Mr. R. N. Wakelin, F.R.I.B.A. (of Messrs. Campbell Jones & Sons), *Consultant Architect.*

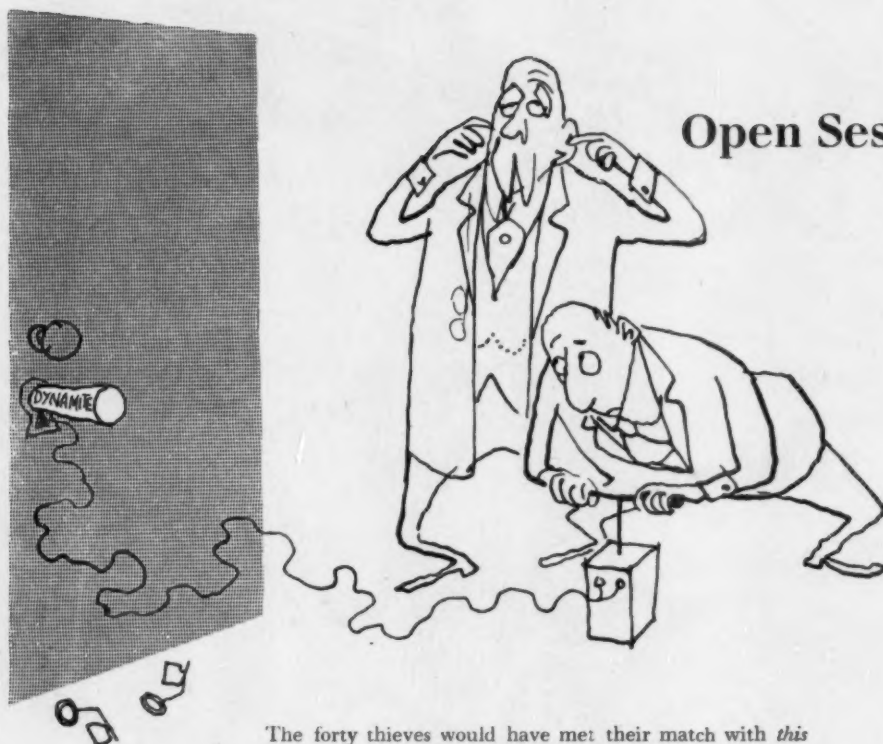
Of all the many calls upon their services in the manufacture of purpose-made windows none has a readier welcome at Crittalls than that which poses some new problem in function or design. For it is out of the accumulated experience which comes from tackling such new concepts, that Crittalls will be made more able still to contribute their skills, and in greater measure, to the buildings of the future.

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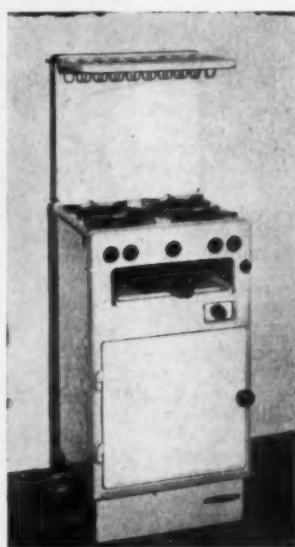
DOOR CLOSERS

The Yale & Towne Manufacturing Company • British Lock & Hardware Division • Willenhall • Staffs • England

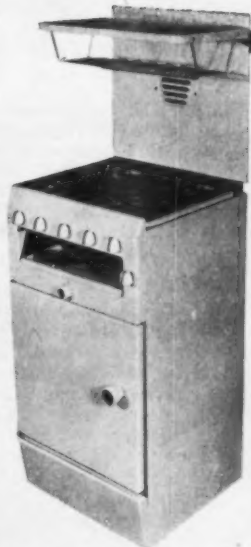
Cookers



Economain 109



G4X Mark III



Crusader



Renown Six

Supplier	Model	Overall Dimensions H x W x D	Oven Dimensions H x W x D	Hotplates	Finish	Remarks
RADIATION GROUP SALES LTD.	Seventy One T.T.	2' 8½" (to hotplate) but 4' 0½" over all x 3' 7½" x 1' 10½"	1' 4" x 1' 6" x 1' 2"	1' 10" x 1' 6"	C, W, VE	Oven to either right or left of hot plate and mounted on plinth supported by legs enclosing a pot rack. 4 boiling burners and one grill burner. Automatic oven heat control. Plate rack and governor fitted.
	New World Seventy Five	3' 0" (to hotplate) but 5' 3" with plate rack x 2' 0" x 1' 9½"	as above	1' 10" x 1' 6"	C, W, VE	Automatic heat controlled oven with side hinged door. 4 boiling and 1 grill burner. Plate rack and governor fitted. Removable hot plate top is reversible.
	New World Seventy Six	3' 0" (to hotplate) but 4' 9" over all x 2' 0" x 1' 9½"	as above	as above	as above	As above but with eye level grill above which 15" clear space must be left.
	New World Eighty Four G	3' 0½" (to hotplate) but 5' 3" with plate rack x 2' 1½" x 1' 10"	as above	2' 0" x 1' 7½"	W, C, G/C	Includes inner glass oven door and automatic hot plate ignition. All taps safety type. Side hinged oven door. 4 boiler burners and one grill burner.
	New World Eighty Five	as above	as above	as above	as above	As above but with eye level grill.
	New World 89	3' 4" (to hotplate) but 5' 1½" over all x 2' 6" x 2' 0"	1' 10" x 1' 8" x 1' 6½"	2' 6" x 2' 0"	Gy, VE	5 boiling burners and one grill burner. Side hinged oven door. Automatic heat control, plate rack and splash plate fitted
	New World 3458 Gas range	4' 8½" x 3' 9" x 1' 10½" (3' 0" to hotplate)	Left: 1' 4" x 1' 3½" x 1' 2" Right: 1' 4" x 1' 6" x 1' 2"	3' 5½" x 1' 6½"	C, VE	Double oven range incorporating 6 boiling burners and large capacity grill. Each oven has automatic heat control.
	New World 3528 Gas range	3' 8½" (3' 0" to hotplate) x 3' 0½" x 2' 1½"	Oven 1' 4" x 1' 6" x 1' 2" Storage drawer 5" x 1½" 4" x 1' 6" Warming chamber 1' 2½" x 1' 0" x 1' 5½"	Cooking Top 3' 0½" x 1' 8½"	W, C	10" x 15" griddle, 9" x 11½" grill, 4 boiling burners. Oven and grill have drop doors. When fitting into a corner, a space of 2½" between wall and side of range is required. Automatic heat control.
	New World 4183	3' 0½" to hotplate but 4' 5½" over all x 1' 10½" x 2' 0"	1' 4" x 1' 6" x 1' 2"	1' 9½" x 1' 5½"	C, VE	Equipped with grill and 4 boiling burners. Safety type taps. Oven has automatic heat control. Includes plate rack and back plate.
STOVES LTD.	Kitchenette 150	3' 0" to hotplate but 4' 3" over all x 1' 6" x 1' 8½"	1' 0" x 1' 2½" x 1' 0½"	1' 5½" x 1' 2½"	VE	Fitted with wall plate, plate rack, two boiling burners, push-in taps, grill chamber, thermostatic oven with side hung door and underneath utensil shelf. Forward flue at hot plate level.
VULCAN STOVE CO. LTD.	G966	4' 7½" (3' 0" to hotplate) x 1' 11" x 1' 8½"	1' 7" x 1' 3½" x 1' 1½"	1' 9" x 1' 7"	Gy, C, C/G	Contains 4 boiling burners and grill. Fitted with double thickness armour- plate glass door with air space between, automatic heat control, plate rack, splash plate and drawer in plinth.
	R.G.966	5' 2½" x 3' 6½" x 1' 11½" 2' 10½" (to hotplate)	1' 8" x 1' 3½" x 1' 4"	1' 9" x 1' 5½"	as above	Table range cooker with 4 boiling burners and grill plate. Both oven and hot closet, situated above oven, have armourplate glass doors. Thermostat control. Splash plate and plate rack.

Industrial Notes Mechanical

Handling Exhibition

● Industrial users of Portable Electric Tools manufactured by Black & Decker Ltd. now have a much improved service offered to them in Manchester. On April 26th the new Branch Office at Knott Mill was officially opened. Representatives of Black & Decker based at this office cover the area of Lancashire, Cheshire and North Wales. This new building houses special facilities for users and prospective users of Black & Decker tools. There is a Demonstration Theatre which is equipped for practical demonstrations of all types of industrial portable electric tools, for showing films, and for lectures at which up to 70 people can be accommodated.

● Hursel Limited are again exhibiting at this year's show at Torquay in the B.E.P.C. They are keeping pace with public demand and are now producing 0.5 kW., 1 kW., 1½ kW. and 2 kW. versions of the two column Hursel ½ kW. Junior portable which proved so popular in the recent hard winter.

● A new lamps and lighting exhibition was opened to the public at the Mazda Showroom, Crown House, on May 8th, where the A.E.I. Lamp and Lighting Company show their selected range of tungsten and fluorescent industrial and commercial lighting fittings for the first time. To further the company's intention to provide a really speedy service to the customer, this selected range of fittings has been carefully chosen to provide as comprehensive a range of equipment as it is possible to stock in quantities large enough to ensure "off the shelf" service throughout the country.

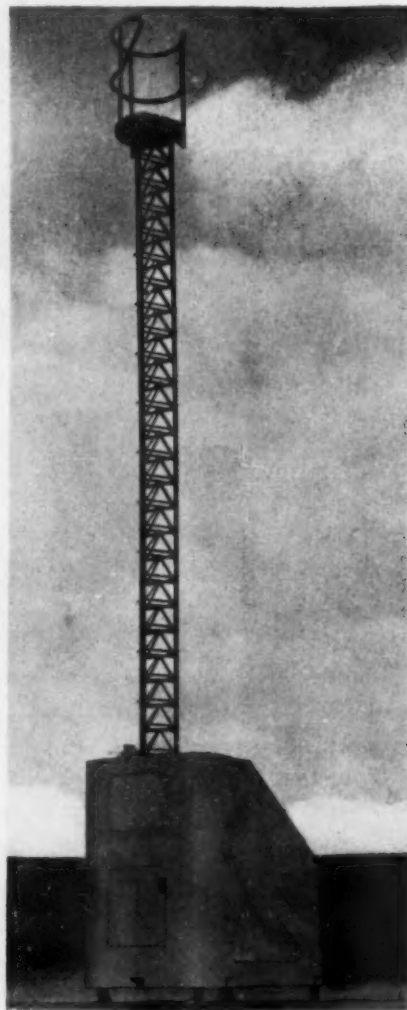
● The usual informal luncheon of the British Oil Burner Manufacturers' Association, which was held at The Trocadero, Piccadilly, on Wednesday, 2nd May, was attended by a larger number than ever before. The principal guest at the luncheon was Mr. David Renton, Q.C., M.P., Parliamentary Secretary to the Ministry of Fuel and Power.

The Mechanical Handling Exhibition, which closed last week on the 19th after 10 days was the largest and most important of its kind in the world. Over 400,000 square feet were occupied and the building industry, comparatively speaking, hardly represented. Even so, there were many things of interest to be seen. One was truly colossal, it filled the centre of the hall, towering above what was the most attractively coloured exhibition of recent times. It was claimed to be the first all-British designed and produced Light Monotower Crane. By Butlins Bros. & Co. Ltd., it has a 100ft jib and is of 3 tons capacity.

Another interesting development is shown on the right. It is an ingenious combination of mechanical principles which makes available in any spot at any time a completely rigid metal tower which is unwound from a mobile winch drum. The mast can be raised to a height of 50ft in about three minutes, controlled from within the working platform on the ground. Safe load: 1,100 lbs shown by Le Roy Beams (Great Britain) Ltd.

Although the first impression at this exhibition was that it was entirely composed of conveyors of every sort and size, there were examples of the finest British engineering in almost every mechanical aid to industry. The fine workmanship and rugged design expected in plant used in the building industry were in evidence.

The Ford County Crawler Mk III with the Braydozer hydraulic direct acting angledozer and bulldozer by W. E. Bray & Co. Ltd. is shown below.



The "Le Roy mast" for inspection and maintenance

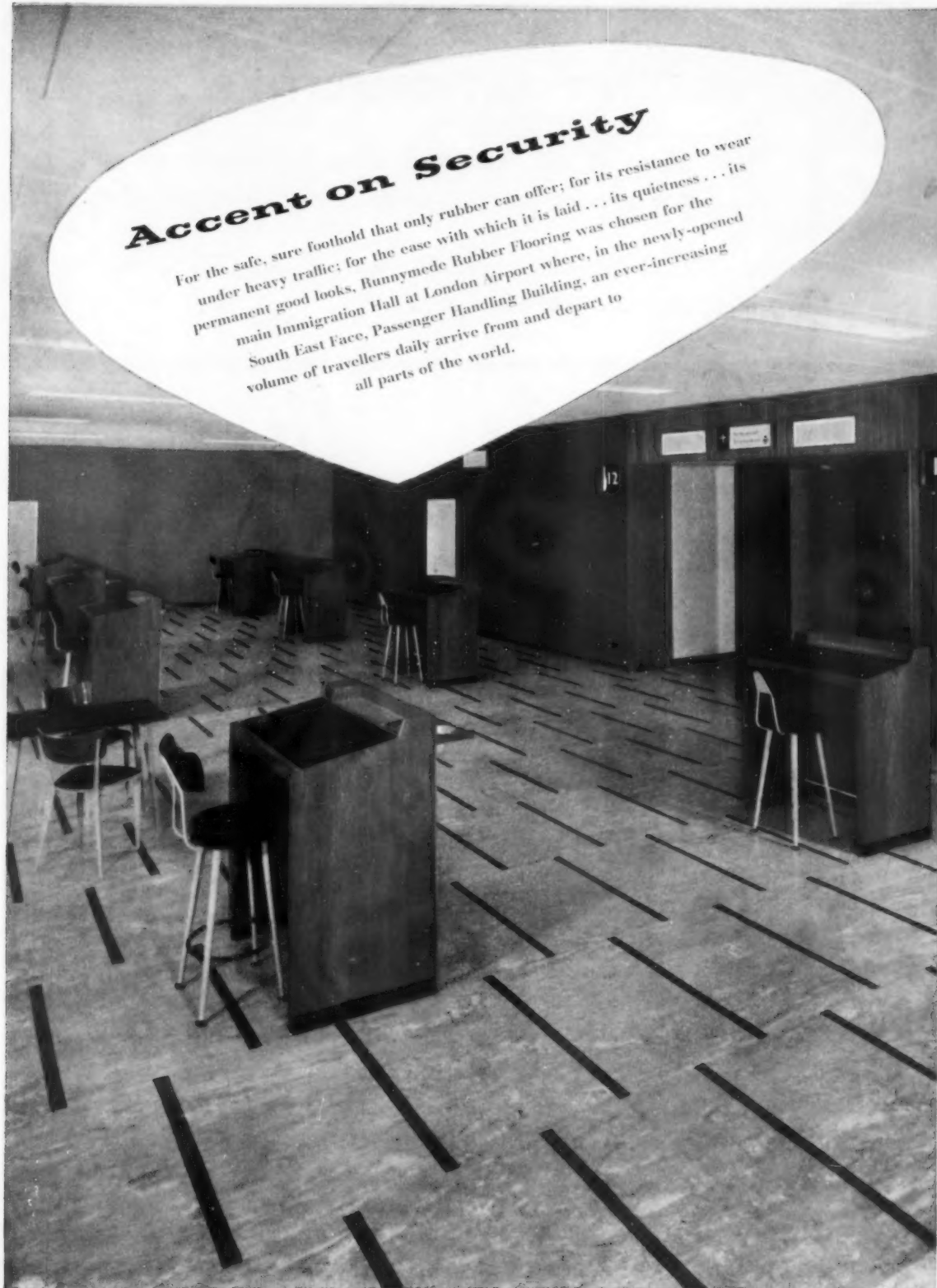


NEW PRODUCTS

The "Braydozer" angle and bulldozer

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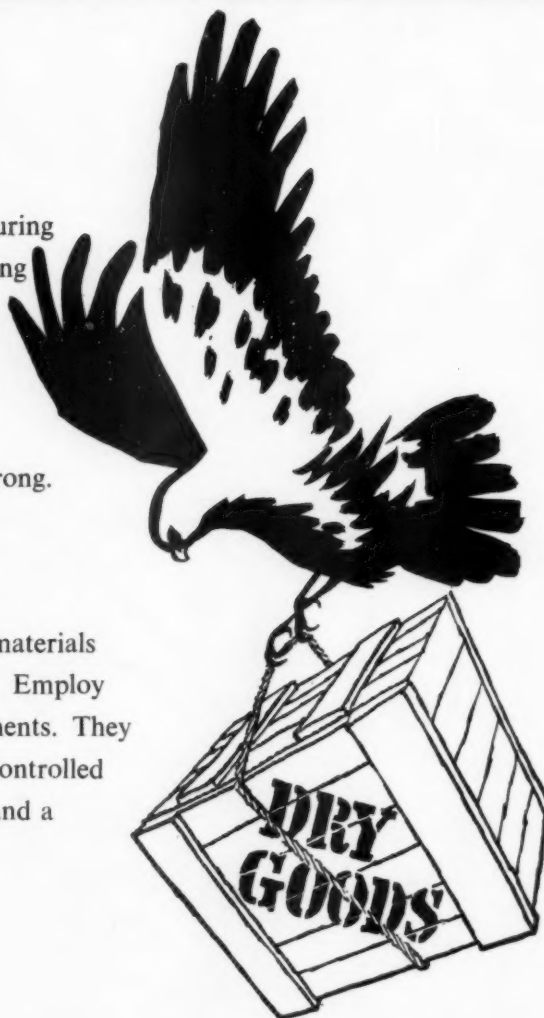
BUILDING RATIONALITIES

Many of the faults and delays in building are still due to poor, unequal or too rapid drying conditions.

Yet—modern competitive operations demand that a job should be economic and right first time.

Tons of water are put into the average house during erection. When complete, it needs much making good before it is handed over. Then the new occupant lives warily amid his temporary decorations, waiting through the first damp months with considerable anxiety and harassing the builder when something goes wrong.

What is more logical than to make sure that materials are water-free before they ever reach the site. Employ the maximum amount of factory-made components. They are made efficiently and inexpensively under controlled conditions. Drying-out is done at the works and a house can be dry on completion.



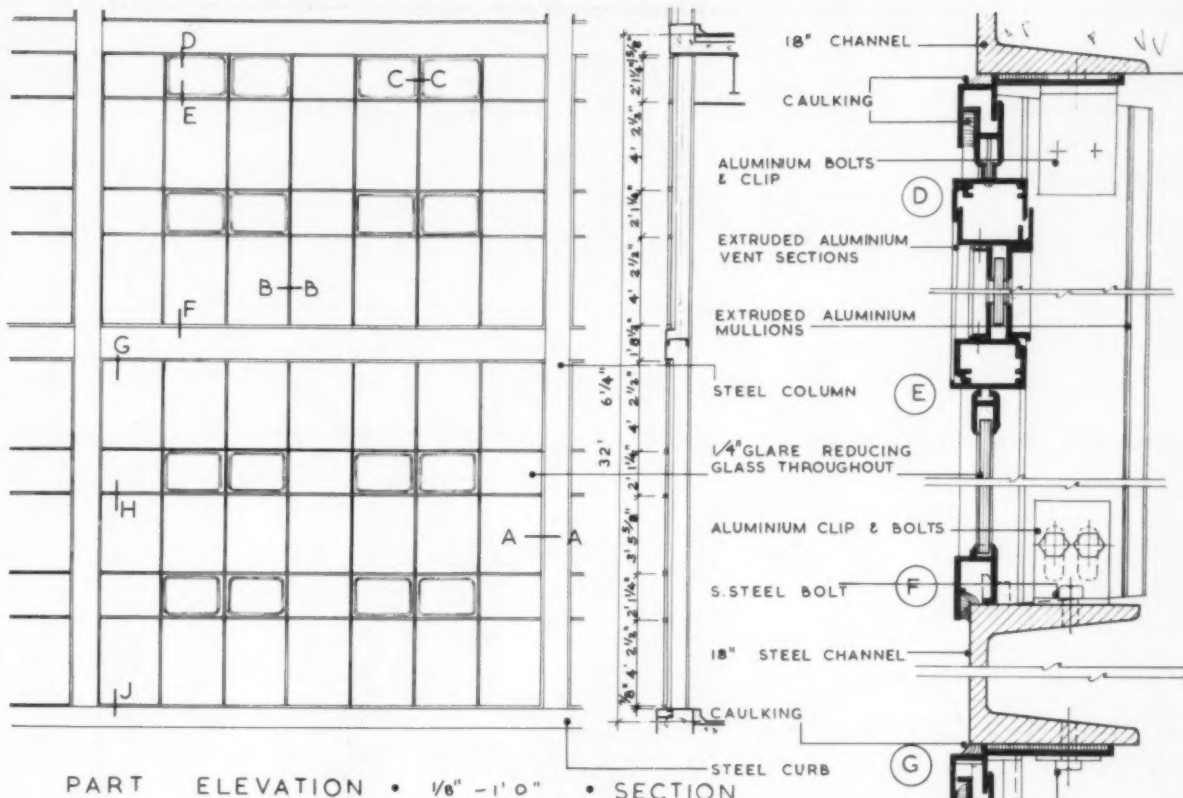
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FLANGE OF STEEL COLUMN

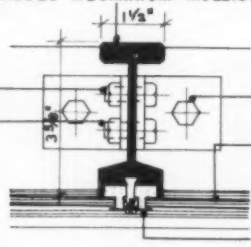
S. STEEL BOLT & WASHER



PLAN AT A-A

ALUMINIUM CLIP & BOLTS

EXTRUDED ALUMINIUM MULLION



PLAN AT B-B

DETAILS • 1/4 F.S.

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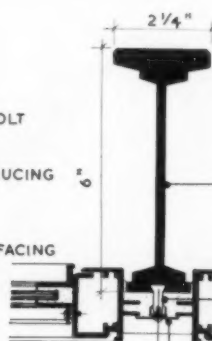
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1/4\" GLARE REDUCING GLASS

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EXTRUDED ALUMINIUM JAMB SECTION AT COLUMN—SHOWN AT A-A



PLAN AT C-C

STEEL CURB

STEEL CURB

SECTION • 1/4 F.S.

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When the connections are made they are simple and nothing is hidden. The simplicity of the structure and its connections can be of the greatest assistance if, later, a steel frame building has to be altered or extended.

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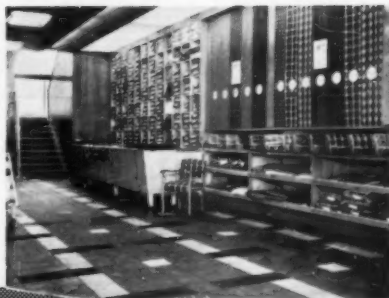


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CONTRACT • NEWS •

address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.

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BUILDING

ASHBY WOULD'S U.C. (a) Erection of five pairs of houses on the Norris Hill site, Moira. (b) Messrs. Pick, Everard, Keay and Gimson, 6, Millstone Lane, Leicester. (c) 2gns. (d) May 26.

ASHFORD U.C. (a) Erection of 70 dwellings at Beaver Green Farm — Section II. (b) Council's Surveyor, 5, North Street. (c) 3gns. (d) June 1. (e) June 22.

BARROW - IN - FURNESS B.C. (a) Erection of the superstructure and out-buildings, which constitute Phase II and last of the police headquarters and magistrates' court to be erected at the corner of Market Street and Duke Street. (b) Borough Engineer, Town Hall. (c) 2gns. (e) June 12.

BENTLEY - WITH - ARKSEY U.C. (a) Contract No. 71. Erection of 58 houses and incidental works. (b) Council's Engineer, Council Offices, Cooke Street, Bentley, Near Doncaster. (c) 2gns. (e) June 12.

BIRKENHEAD B.C. (a) Erection and completion of Woodchurch Secondary School for Boys, Carr Bridge Road, Woodchurch Estate. (b) Borough Architect, 3, Conway Street. (c) 2gns. (e) June 12.

BLABY R.C. (a) Erection of a terrace of six two-bedroom bungalows at Dove-dale Road. (b) Council's Architect, Council Offices, Narborough, Leicester. (c) 2gns. (e) June 11.

BLOFIELD AND FLEGG R.C. (a) Erection of two pairs of houses at Thurne, Gt. Yarmouth. (b) Council's Clerk, Council Offices, Acle, Norfolk. (c) 2gns. (e) June 11.

BURY ST. EDMUNDS B.C. (a) Erection of 116 houses in 29 blocks on the Howard Estate. (b) Borough Engineer, Borough Offices. (c) 2gns. (e) May 31.

CAMBRIDGESHIRE C.C. (a) Erection of a house at Broad Lane, Cottenham. (b) County Land Agent, Shire Hall, Cambridge. (d) May 26.

CHESTER R.C. (a) Erection and completion of 22 houses at Saughall. (b) T. C. R. Eaton, 16, White Friars, Chester. (c) 3gns. (e) June 19.

EASTBOURNE B.C. (a) Erection of (1) 14 houses at Spots Farm Estate, Hampden Park, Section 1, and (2) 62 flats in 5 three-storey blocks at Langney Village, Section 15. (b) Borough Surveyor, 2, Saffrons Road. (c) 2gns, by cheque, payable to Corporation, for each project. (d) June 4. (e) (1) July 11 and (2) August 15.

ESSEX C.C. (a) Erection of additional classroom on first floor at Clacton High School. Approx. cost £9,750. (b) County Architect, County Hall, Chelmsford. (d) May 26.

ESSEX C.C. (a) Erection of (1) additional sanitary accommodation at Loughton Staples Road Primary School, and

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(2) additional sanitary accommodation at Chingford Yardley Lane Primary School. Approx. costs (1) £3,500 and (2) £4,200. (b) County Architect, County Hall, Chelmsford. (d) May 26.

ESSEX C.C. (a) Erection of (1) new practical room at Billericay Secondary School, (2) cloakroom and sanitary accommodation at Wimbish Primary School, and (3) additional classrooms, covered way, etc., at Chelmsford High School. Approx. costs (1) £6,500, (2) £5,500, and (3) £6,500. (b) County Architect, County Hall, Chelmsford. (d) May 26.

EVESHAM B.C. (a) Erection of two houses and office buildings on the site of the new sewage disposal works. (b) Messrs. Pemberton and Bateman, 21, Vine Street. (c) 2gns, by cheque, payable to Corporation. (e) June 11.

GOSPORT B.C. (a) Erection of proposed 11 (with possibility of extending to 22) one-bedroom bungalows with road and other incidental works at The Crossway. (b) Borough Engineer, Town Hall. (c) 2gns.

HALE U.C. (a) Erection of seven pairs of bungalows on the Delahays Road Estate. (b) Council's Surveyor, Council Offices. (c) 2gns. (e) June 7.

HOLYWELL U.C. (a) Erection of 19 houses at Moor Avenue. (b) Council's Engineer, Town Hall, Holywell, Flintshire. (c) 2gns. (e) June 11.

LEEK U.C. (a) Erection of (Contract 31) three blocks of four flats, two blocks of four houses, and two blocks of six houses, and (Contract 32) four blocks of four flats, two blocks of four houses, two blocks of six houses, and one block of six houses, at Haregate Estate. (b) Council's Engineer, Town Hall, Leek, Staffordshire. (c) 2gns. (e) June 4.

MANCHESTER C.C. (a) Erection of (Contract No 223) 225 dwellings in Outwood Road, Cheadle; (Contract No 251) 24 dwellings in Kingsgate, Wythenshawe; (Contract No 235) 32 flats at Ravenscarr Crescent, Wythenshawe, and (Contract No 237) 6 dwellings at Stanley Grove, Longsight. (b) Director of Housing, Town Hall, Manchester 2. (e) June 5.

N. IRELAND — BELFAST C.C. (a) Erection of a kitchen, servery, boiler-house and dining rooms, together with site works, at Cameronian Drive, Orange-field. (b) Education Architect, 40, Academy Street. (c) £5. (e) June 7.

N. IRELAND — BELFAST C.C. (a) Erection of kitchen, servery, ancillary rooms and dining-room at Blythe Street, Sandy Row. (b) Education Architect's Department, 40, Academy Street. (c) £5. (e) June 7.

N. IRELAND — DERRY. (a) Supply, fabrication and erection of structural steelwork for girls' intermediate school at Creggan, Derry, for Most Rev. Neil Farren. (b) Messrs. Clarke, Nicholls and Marcel, 37, Malone Road, Belfast. (c) 3gns, by cheque. (e) June 5.

NORTH WITCHFORD R.C. (a) Erection 15 pairs of houses, Westfield Estate, Manea. (b) Joseph E. Mitchell, 33a, High Street, March, Cambs. (c) 2gns. (e) June 8.

NOTTINGHAM C.C. (a) Conversion of the physics lecture theatre at the Nottingham and District Technical College, Shakespeare Street. (b) City Engineer, The Guildhall. (c) £2. (e) June 8.

SCOTLAND — MIDLOTHIAN. (a) All or separate trades for the erection of 22

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SCOTLAND — ROXBURGH C.C. (a) Erection of 10 2-apartment and 6 3-apartment houses at St. Boswells. (b) County Architect, County Offices, Newtown St. Boswells. (c) June 5.

SOUTH SHIELDS B.C. (a) Erection of a block of offices on the north side of the Market Place. (b) Borough Engineer, Town Hall. (c) 2gns. (e) June 6.

STROUD U.C. (a) Erection of 8 flats in 4 blocks at Dudbridge Hill site. (b) F. Foster Langley, High Street. (c) June 13.

SWINTON AND PENDLEBURY B.C. (a) Erection of 156 houses, 16 flats, and one block of garages and construction of roads and sewers at Parkfield Estate. (b) Borough Engineer, Town Hall, Swinton, Lancs. (c) 5gns. (e) June 22.

WAKEFIELD C.C. (a) Erection of (1) 196 two- and three-bedroom houses in

pairs, and (2) 60 one-bedroom flats in blocks of four, at Kettlethorpe Estate (Area No 4). (b) City Engineer, Town Hall. (d) May 29.

WALSALL E.C. (a) Erection of a secondary school and associated works at Lichfield Road, Bloxwich. Approx. cost £270,000. (b) Director of Education. Education Offices, Darwall Street, together with details of work of a similar size and nature previously carried out. (d) June 11. Contractors to state that they are able and willing to submit a bona fide tender for this contract and to carry out the work expeditiously. (e) August 3.

WATFORD R.C. (a) Erection of 18 flats, 5 shops with maisonnettes over, a public convenience, 8 old people's dwellings, garages and site works on a site in High Street, Abbots Langley. (b) Council's Clerk, Council Offices, Wynyard House, Langley Road. (c) 1gn. (d) June 4.

YEovil R.C. (a) Erection of 6 houses and 2 bungalows, together with roads, sewers and incidental site works at Poplars Close, Yeovil Marsh. (b) Messrs. Petter, Warren and Roydon Cooper, Old Oxford Inn, West Hendford. (c) 2gns. (e) June 14.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

DARTFORD. (1) Paper mill, for Dartford Paper Mills Ltd. (3) James Longley and Co. Ltd., Crawley, Sussex. (4) £500,000.

LONDON COUNTY COUNCIL. (1) Secondary school. (2) Rest Post Hill, Camberwell. (3) Thomas and Edge Ltd., 25, Greens End, Woolwich, S.E.18. (4) £527,113. (1) Unit workshops, etc. (2) Long Street, Shoreditch. (3) W. J. Marston and Son Ltd., 1, Stephendale Road, Fulham, S.W.6. (4) £163,500. (1) Four schools. (2) Wandsworth, Roehampton, Greenwich and Upper Tulse Hill. (3) W. J. Simms, Sons and Cooke Ltd., 78, Mount Street, London, W.1. (4) £122,388, £112,827, £75,409 and £49,437.

LONDON E.C. (1) Block of offices. (2) Greystoke Street. (3) Harry Neal Ltd., 117 Baker Street, London, W.1. (4) £300,000.

LONDON COUNTY COUNCIL. (1) Two blocks of 6-storey flats. (2) Ocean Estate, Stepney. (3) W. J. Simms, Sons and Cooke Ltd., 78, Mount Street, London, W.1. (4) £144,087.

WEST HARTLEPOOL B.C. (1) Primary school. (2) Owton Manor. (3) T. M. Stonehouse Ltd., Osborne Road, West Hartlepool.

CARLISLE CITY COUNCIL. (1) Junior school. (2) Morton. (3) John Laing and Son Ltd., Carlisle. (4) £55,000. (1) Infants' school. (2) Pennine Way. (3) Arthur Nixon Ltd., Lowther Street, Carlisle. (4) £40,000.

NORFOLK C.C. (1) Adaptations, etc. (2) Hill House, Pulham Market. (3) Blackburns (Harleston) Ltd., Harleston. (4) £24,340.

DAGENHAM B.C. (1) 78 houses. (2) Marks Gate Estate. (3) S. R. Bryett,

Grays Farm, Dagenham, Essex. (4) £153,568.

BIRMINGHAM. (1) Factory. (2) For Radiation Repairs (Auto and Industrial) Ltd., at Hospital Street. (3) C. Twigg Ltd., 12-13, Theodore Street, Birmingham, 19.

CORBY, NORTHANTS. (1) Erection of St. Columba Church. (2) Studfall Avenue. (3) A. V. Ambury, Geddington, Northants.

WELSHPOOL (MONT.) B.C. (1) 44 houses, 16 flats. (2) Oldford Estate. (3) F. W. Davies and Co., Gobowen, Oswestry. (4) £75,560.

NEWCASTLE-ON-TYNE. (1) Offices for National Union of General and Municipal Workers. (2) West Road. (3) John Jackson and Sons, Corporation Street, Newcastle-on-Tyne.

SEDGLEY (STAFFS) U.D.C. (1) 46 houses. (2) Cinder Road. (3) Buildings and Equipment (Sedgley) Ltd., Wolverhampton Road East, Sedgley. (4) £69,604.

HEYWOOD B.C. (1) 96 flats. (2) Hardfield. (3) James Hobson and Sons, Ltd., 55, Newark Street, Nottingham.

SOUTHAMPTON CORPORATION. (1) Redbridge Secondary School. (3) A. J. Dunning and Sons (Weyhill) Ltd., Weyhill, Andover, Hants. (4) £213,193.

TAUNTON B.C. (1) 100 "Easiform" houses. (2) Priorswood Estate. (3) John Laing and Son Ltd., London, N.W.7. (4) £161,895.

SHOREDITCH B.C. (1) Flats. (2) Wenlock Barn Estate. (3) Walter Lawrence and Son Ltd., 31, Sun Street, Finsbury, E.C.2. (4) £164,887.

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EAST HAM B.C. (1) 200 houses as first phase. (2) Stanford-le-Hope, Essex. (3) Thos. Bates and Son Ltd., Church Road, Harold Wood, Romford (negotiated).

ST. MARY CRAY, KENT. (1) Superstructure of factory for Morphy-Richards Ltd. (3) J. Mowlem and Co. Ltd., Ebury Bridge Road, London, S.W.1. (4) £200,000.

PLYMOUTH CITY COUNCIL. (1) 251 dwellings. (2) Southway Estate. (3) John Laing and Son Ltd., London, N.W.7.

MANCHESTER CORPORATION. (1) Library. (2) Wythenshawe. (3) F. J. Gibson (Builder) Ltd., 38a, Manchester Road, Wilmslow, Cheshire.

OXFORD UNITED HOSPITALS BOARD. (1) Extensions to Radcliffe Infirmary. (3) Benfield and Loxley Ltd., 106, Bullingdon Road, Oxford.

ST. ALBANS E.C. (1) Junior, etc., schools. (2) Windermere Avenue. (3) T. J. Lovell and Sons Ltd., Gerrards Cross, Bucks. (4) £52,000.

LANCASHIRE C.C. (1) Secondary school. (2) Cartmel Priory. (3) Thompson and Jackson Ltd., St. Anne's Place, Moor Lane, Lancaster. (4) £99,673.

ROTHERHAM B.C. (1) Primary school. (2) Roughwood. (3) C. Earnshaw (Rotherham) Ltd., Gilberthorpe Street, Rotherham. (4) £97,484.

SHEWSBURY B.C. (1) 142 houses, 2 shops. (2) Meole Brace. (3) M. A. Boswell (Contractors) Ltd., School Street, Wolverhampton. (4) £193,352.

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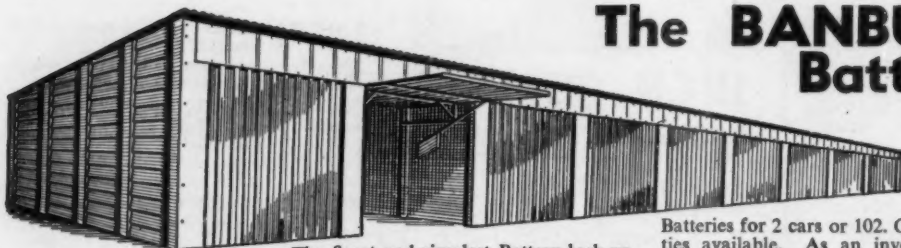
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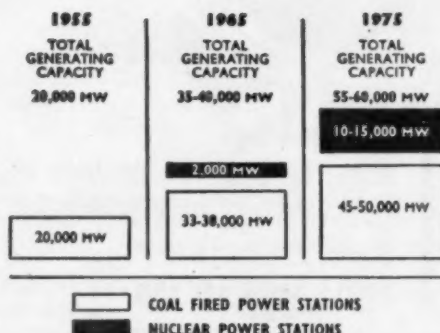
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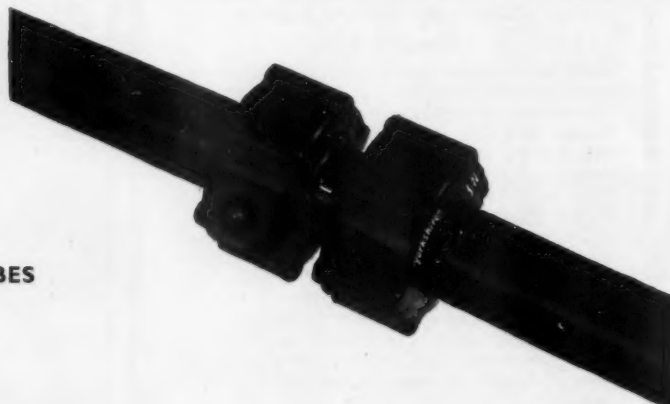
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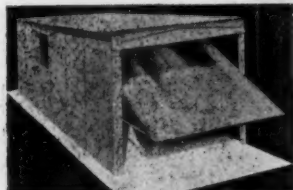
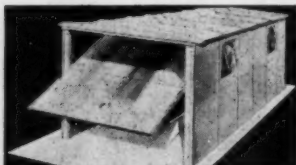
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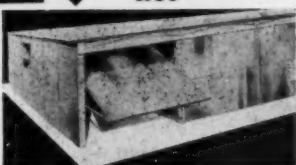
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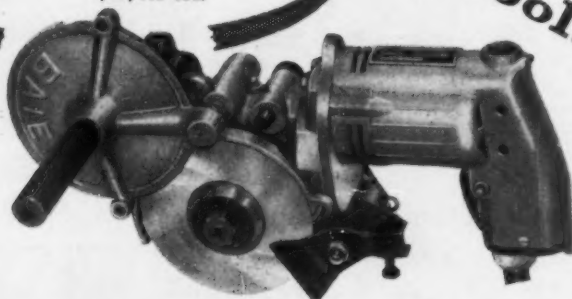
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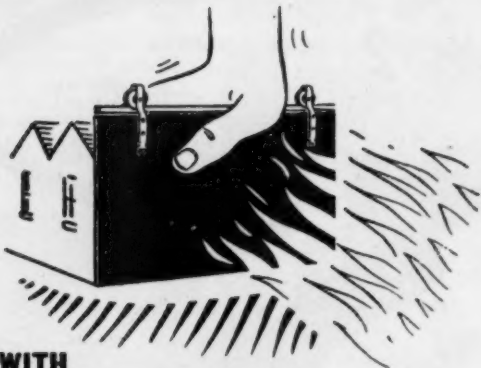
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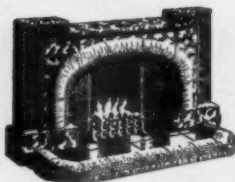
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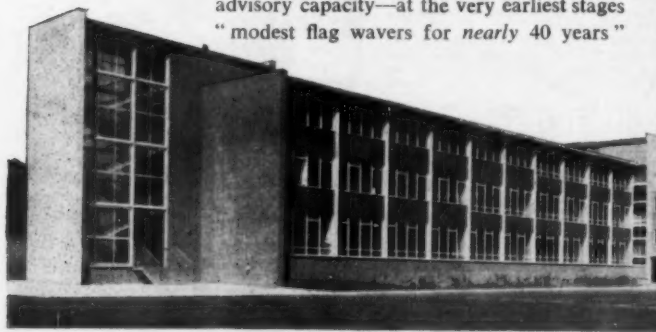
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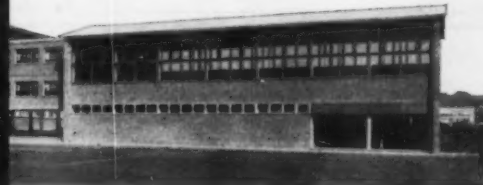
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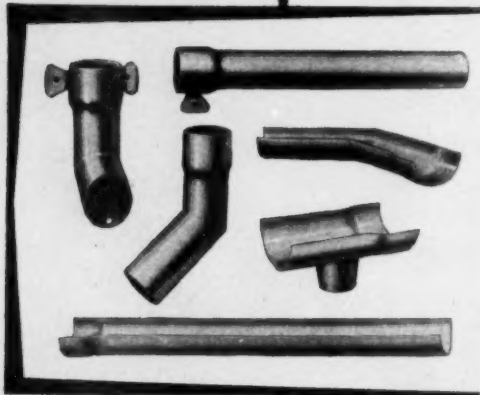
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APPOINTMENTS

COUNTY BOROUGH OF DERBY

BOROUGH ARCHITECT'S DEPARTMENT

Architectural Staff:

- (a) A.P.T. Grade IV (£710 - £885 per annum).
- (b) A.P.T. Grade III (£640 - £765 per annum).
- (c) A.P.T. Grade II (£595 - £675 per annum).
- (d) A.P.T. Grade I (£530 - £610 per annum).
- (e) Higher General Division (£180 - £500 per annum).

Quantity Surveying Staff:

- (a) A.P.T. Grade V (£795 - £970 per annum).
- (b) A.P.T. Grade III (£640 - £765 per annum).
- (c) A.P.T. Grade II (£595 - £675 per annum).
- (d) Higher General Division (£180 - £500 per annum).

Commencing salary will be according to qualifications and experience.

Permanent superannuable appointments, subject to one month's notice and to medical examination.

National Conditions of Service. Applicants must state for which post they are applying.

Further particulars and application forms obtainable from and to be returned to The Borough Architect, The Council House, Corporation Street, Derby, not later than Monday, 4th June, 1956.

G. H. EMLYN JONES,
Town Clerk. [2355]

14th May, 1956.

WORCESTERSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

APPLICATIONS are invited for the following positions on the permanent staff:—

- 1 Senior Assistant Architect Grade A.P.T. VI (£680 - £1,080). This position is for a group leader in charge of a section of the drawing office mainly engaged in carrying out major capital projects on new schools. Candidates should be qualified architects with good experience in the design and construction of contemporary schools.

- 2 Architectural Assistant Grade A.P.T. III (£640 - £765). Preference will be given to candidates who have passed the Intermediate R.I.B.A. Examination.

- 3 Architectural Assistant Grade A.P.T. II (£595 - £675).

- 4 Engineering Assistant (Heating and Ventilating) Grade A.P.T. IV (£710 - £885). Applicants should have had training and experience in the design, specification, estimates and supervision of contracts for heating and allied service in schools and other large public buildings and of maintenance of equipment.

Application forms may be obtained from L. C. Lomas, F.R.I.B.A., County Architect, 14, Castle Street, Worcester, (J.291) [2357]

RICHARD COSTAIN LTD. have vacancies in their Architects' Department for:

ARCHITECTS, with Final R.I.B.A., and ARCHITECTURAL ASSISTANTS of Intermediate and up to Final R.I.B.A. standard.

Salaries offered will be in proportion to age and experience and applications should be sent to: H. S. SMITH, ESQ., R.I.B.A., 111, Westminster Bridge Road, London, S.E.1. [2344]

LONDON ELECTRICITY BOARD

ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above position in the Architect's Section of the Chief Engineer's Department in Central London.

Applicants should be studying for or have passed the Intermediate Examination of the R.I.B.A. be capable draughtsmen and have had several years' experience in an Architect's office.

The post is graded under Schedule 'D' of the National Joint Board agreement as Grade 5—£735 to £840 per annum, inclusive of London Allowance.

Application forms from Personnel Officer, 46, New Broad St., London, E.C.2. Please quote ref.: FER/2156/AA. [2353]

APPOINTMENTS—contd.

CAMBRIDGESHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

APPLICATIONS are invited for the following appointments:—

- (a) Two QUANTITY SURVEYORS, Grade IV (£710/35/£885).
- (b) One ASSISTANT QUANTITY SURVEYOR, Grade II (£595/20/£675).
- (c) One ENGINEER, Grade IV/V (£710/35/£970).
- (d) One ARCHITECTURAL ASSISTANT, Grade IV (£710/35/£885).
- (e) Two ARCHITECTURAL ASSISTANTS, Mis. Div. III (£445/15/20/£510).

(a) Applicants should have had considerable experience in all duties of quantity surveying, including site measurement and final accounts.

(b) Applicants should have had experience in abstracting, billing and site measurement. Preference will be given to applicants who have passed the intermediate stage of the R.I.C.S.

(c) Applicants should be Associate Members of the Institute of Heating and Ventilating Engineers, or hold equivalent qualifications, and should have had experience in preparing designs, specifications and also the supervision of contracts for heating, ventilating and lighting services in large public buildings.

(d) Applicants should be Registered Architects and able to develop working drawings from sketch plans.

(e) Applicants should be neat and expeditious draughtsmen and be able to prepare working drawings from tracings.

The appointments are subject to the Local Government Superannuation Acts, 1937 to 1953, the National Scheme of Conditions of Service, a satisfactory medical examination and termination by one month's notice on either side.

Applications, stating age, present salary, present and previous appointments, details of training and experience, together with one recent testimonial and the names and addresses of two referees, should be submitted to the undersigned not later than 8th June, 1956.

CHARLES PHYTHIAN,
Clerk of the County Council.

Shire Hall,
Cambridge. [2366]
May, 1956.

HAMPSHIRE

APPLICATIONS are invited for the following appointments in the County Architect's Department.

- (a) Assistant Architect, Grade V (£795 - £970).
- (b) Architectural Assistant, Grade III (£640-£765).

Candidates for appointment:—

- (a) must have completed the final R.I.B.A. examination, with at least five years' good general experience in the design and construction of Public Buildings. The appointment will be terminable by three calendar months' notice on either side.

- (b) must have passed the Intermediate R.I.B.A. examination or its equivalent at one of the recognised Schools of Architecture and have had suitable office experience.

The appointments are pensionable and subject to satisfactory medical reports. In approved cases the County Council are prepared to assist in meeting removal and other expenses.

Applications, on forms obtainable from the County Architect, The Castle, Winchester, should reach him by the 2nd June. [2356]

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APPLICANTS should be fully qualified architects.

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Contributory superannuation.

Apply on forms from Chief Architect (Vacancy), Broadfield, Crawley, Sussex, by 11th June, 1956.

C. A. C. TURNER,
Chief Executive. [2361]

APPOINTMENTS—contd.

CITY OF LIVERPOOL

ARCHITECTURAL & HOUSING DEPARTMENT

APPLICATIONS are invited for the appointment of TECHNICAL ASSISTANT (PERSPECTIVES). Salary, £595 - £675 per annum (A.P.T. II). Applicants should have experience in preparing perspective drawings, illustrating (preferably Architectural subjects) in line and colour and the preparation of drawings for publicity purposes. Experience in lettering, setting out, etc., is also desirable. Applications will be considered from commercial artists, or persons with architectural training. Application forms obtainable from the City Architect and Director of Housing, Blackburn Chambers, Dale Street, Liverpool, 2, must be returned to him by 9th June, 1956.

The appointment is superannuable and subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER,
Town Clerk.

Municipal Buildings,
Liverpool, 2. (J.4368) [2360]

BOROUGH OF TWICKENHAM

APPLICATIONS are invited for the following posts (a) Senior Assistant Architect, must have passed R.I.B.A. Final. Salary A.P.T.V., (£795 - £970). (b) Junior Architectural Assistant, A.P.T. II (£595-£675).

(c) Two Junior Engineering Assistants, A.P.T. II (£595-£675). All salaries plus London Weightings. The commencing salary will be the minimum of the Grade in each case. Housing accommodation available for post (a). Candidates for (b) and (c) should have passed the appropriate intermediate examination. Applications stating age, qualifications, experience, etc., together with the names of two referees should be sent to Borough Engineer, Municipal Offices, Twickenham, not later than 2nd June, 1956. N.J.C. Conditions will apply and superannuation payable. Canvassing will disqualify and applicants must state whether they are related to any member of the Corporation or senior officer.

W. H. JONES,
Town Clerk.

Municipal Offices,
Twickenham.
May, 1956. [2365]

CITY OF BIRMINGHAM

HOUSING MANAGEMENT DEPARTMENT

Appointment of Welfare & Safety Officer Miscellaneous Grade V (£580-£640)

APPLICATIONS are invited for appointment to the above vacancy. Duties will include:

- (a) to act as Safety Officer under the Safety and Welfare Regulations.

- (b) to act as Welfare Officer with particular relation to apprentices.

Candidates will be required to pass the usual medical examination.

Full details of duties of appointment, etc., may be obtained by applying in writing to the undersigned.

J. P. MACEY,
Housing Manager.
Housing Management Department,
19-29, Summer Row,
Birmingham, 3. [2369]

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QUALIFIED Assistant required immediately. — Apply in writing, stating age, details of practical experience and when available, to: S. P. Jordan, A.R.I.B.A., M.S.I.A., Dip. T.P., 11, King's Road, Sloane Square, S.W.3. [2367]

ARCHITECTS with London practice require Assistants with sound knowledge of construction. Large and small projects of wide variety. — Reply Box 1984, c/o A. & B. N. [2368]

ASSISTANT required. Intermediate to Final standard. Varied type of work, mainly alterations and conversions. Office specialises in preservation of Ancient Buildings. Salary by arrangement. — John E. M. Macgregor & Partners, 53, Great Ormond Street, W.C.1. [2362]

MIDLOTHIAN COUNTY COUNCIL require Architectural Assistants with sound knowledge of housing and school buildings. Salary scales (a) £710-£805, (b) £710-£760, and (c) £550-£665. Superannuable. — Applications with full particulars and copy testimonials to the County Clerk, County Buildings, George IV Bridge, Edinburgh, 1. [2359]

ARCHITECTURAL Assistants required to work in Wimbledon. Commencing salary £600 to £750 p.a., according to age and experience. Five-day week, pension scheme, luncheon vouchers. — The Coniston Company, Eagle House, High Street, Wimbledon, S.W.19. WIM 8521. [2358]

EXPERIENCED Architectural Assistant required. Salary £800 to £900 p.a. Interesting work. — Apply, giving full particulars, to Box 1811, c/o A. & B. N. [2345]

ARCHITECTURAL Assistants with three years' training experience in Architect's Office, of Inter R.I.B.A. Standard and with a live interest in Historic Architecture required by MINISTRY OF WORKS' ANCIENT MONUMENTS DRAWING OFFICE, LONDON. Applicants must have surveying experience and a sound knowledge of construction. Work involves Surveying and preservation of Ancient Monuments and Historic Buildings. [2346]

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State age, training and experience to Chief Architect, Ministry of Works (C), Abell House, London, S.W.1. [2346]

PRIVATE practice office has vacancy for Assistant willing to take control of jobs. Work includes domestic, ecclesiastical, commercial and industrial, modern and traditional. Urgent. — Send details age, experience and salary suggested to: Forsyth Lawson, Cunningham & Partners, 30, Horse Fair, Banbury, Oxon. [0094]

ASSISTANT required in busy practice in West End, in early twenties, about Intermediate R.I.B.A. Standard. Excellent opportunities for gaining all-round experience. — Box No. 1685, c/o A. & B. N. [1936]

THE BRITISH THOMSON-HOUSTON CO. LTD., require Architectural Assistants: Intermediate or R.I.B.A. Final standard, preferably with previous experience on projects of an industrial nature, for their architect office at Rugby. — Applications, stating age and full particulars to: O. C. Knight, Esq., A.R.I.B.A., Works Architect, The British Thomson-Houston Co. Ltd., Rugby. [2307]

ARCHITECT'S co-partnership require Qualified Assistant with experience. — Write: 44, Charlotte Street, London, W.1., or telephone Langham 5791. [0002]

SITUATIONS VACANT

APPLICATIONS are invited from persons with suitable training and experience for an appointment as **DEVELOPMENT MANAGER** for this company. Duties would include negotiations with purchasers, technical services to builders and other interested parties and the development of building sites in various parts of the country. Salary offered will depend on applicant's age, technical knowledge and experience, but there are good prospects for a man with the necessary qualifications and initiative. — Applications, in writing, should be made to Bailey-Stratton Houses Ltd., Windsor House, Kingsway, London, W.C.2. [2363]

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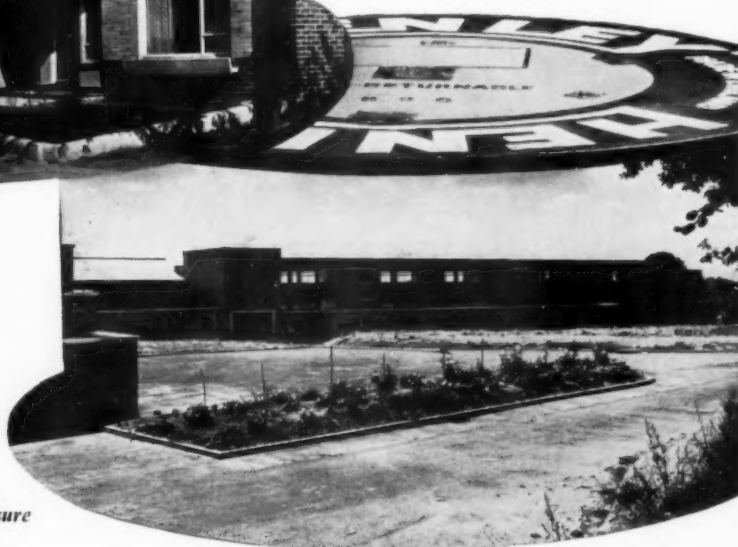
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